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ABSTRACT

The Teenage Health Teaching Modules (THTM) program is a health education curriculum for adolescents. Each THTM module frames an adolescent health task emphasizing development of self-assessment, communication, decision making, health advocacy, and self-management. This module attempts to help adolescents understand the meaning of stress in their lives, help them see the critical relationship of stress to short- and long-term health, and introduce them to a variety of techniques and behaviors to help manage and minimize the effects of stress. Three kinds of stress are emphasized: situational, psychological, and environmental. Outlines are provided for class activities directed towards: (1) distinguishing between and defining the terms stress, stressor, and distress; (2) investigating the sources of stress at different ages and comparing findings; (3) learning about the stress response and the relationship between stress and health; (4) discovering the role of perception in the creation and handling of stress; (5) minimizing stress through relaxation; (6) minimizing stress through assertive communication; (7) understanding the potential use and misuse of diet, exercise, and sleep in response to stress; and (8) looking for changes in attitudes and behaviors toward stressors. Class activities are conducted by discussion, mini-lectures, relaxation exercises, and role playing. (JD)

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DEPARTMENT OF HEALTH & HUMAN SERVICES

PRELIMINARY DRAFT
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Public Health Service
Centers for Disease Control

Memorandum

Date: October 1983

From: Director, School Health and Special Projects
Division of Health Education
Center for Health Promotion and Education

Subject: Teenage Health Teaching Module
HANDLING STRESS

To: Colleagues in School Health and Health Promotion

The attached module, Handling Stress, is one of sixteen modules in the Teenage Health Teaching Modules (THTM) program. The overall goal of this health curriculum for adolescents is to provide secondary school students with knowledge, skills, and understandings that will enable them to act on behalf of themselves and others in health-enhancing ways. Each THTM module frames an adolescent health task and is designed to help students contribute to their own present and future health and well-being and that of the families, schools, and communities to which they belong.

The THTM program was produced under contract (CDC 200-79-0922) between the School and Society Programs of the Education Development Center, Inc., and the Center for Health Promotion and Education of the Centers for Disease Control.

Inquiries related to this module should be directed to this office. Write or call:

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This is one module in the Teenage Health Teaching Modules (THTM) program, a health education curriculum for adolescents developed by Education Development Center, Inc. (EDC) and funded by the Center for Health Promotion and Education, Centers for Disease Control, Public Health Service, U.S. Department of Health and Human Services.

The overall goal of the THTM program is to provide secondary school students with knowledge, skills, and understandings that will enable them to act on behalf of themselves and others in health-enhancing ways. Each THTM module frames an adolescent health task and is designed to help students contribute to their own present and future health and well-being, and that of the families, schools, and communities to which they belong.

The THTM program emphasizes development of the following health skills: self-assessment, communication, decision making, health advocacy, and self-management. For a complete description of the THTM program, additional materials, or assistance in using these materials, please write or call Teenage Health Teaching Modules, Education Development Center, Inc., 55 Chapel Street, Newton, MA 02160, (617) 969-7100. Official health and education agencies may also contact the School Health and Special Projects Office, Division of Health Education, Center for Health Promotion and Education, Centers for Disease Control, Atlanta, GA 30333, (404) 329-2829 or FTS 236-2829.

TEENAGE HEALTH TEACHING MODULES

Health Is Basic: An Introduction to the THTM Program for Teachers and Students

Understanding Growth and Development

Being Fit

Eating Well

Communicating in Families

Promoting Health in Families

Having Friends

Living with Feelings

Handling Stress

Protecting Oneself and Others: Smoking, Drinking, and Drugs

Preventing Injuries

Improving Health and Safety in the Workplace

Locating Health Resources

Using New Health Research

Acting to Create a Healthy Environment

Planning a Healthy Future

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Introduction

In the past, the term stress has usually referred to negative pressures. Today the term is used to describe any demand that requires some kind of physical or emotional readjustment. A "stressor," or event that produces a stress reaction, can be pleasant or unpleasant, exciting or disheartening. Any experience can be stressful. And what is stressful for one individual may not be stressful for another.

Stress is a natural and essential part of living and growing. We cannot avoid it even if we want to. In fact, moderate levels of stress and stimulation are actually necessary for healthy functioning. Our ability to respond makes us fully alive. Dr. Hans Selye, an expert on the subject of stress, has said, "Complete freedom from stress is death."*

Inborn and involuntary, the "stress response" is the mobilization of our minds and bodies to prepare us for the physical or emotional changes that a stressor demands. In the athlete's tensed muscles, in the artist's fierce concentration, in the groom's anticipation of the wedding, in the adrenalin that rushes through us when we hear tragic news, we witness the stress response. It is necessary for productivity, for creativity, for meeting life's demands.

An overload of stressors at any one time, or the accumulation of stressors over time, may predispose people to illness and disease. Chronic exposure to potent stressors as diverse as noise, emotional conflict, excitement, isolation, or crowding, can weaken physiological and psychological defenses. In the presence of continual stressors, the body is in a state of constant alert. Blood pressure is elevated, breathing quickens, and muscles tense. Many health researchers believe that over time, wear and tear on the mind and body from continually

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*Hans Selye, "The Stress Concept Today," in Kutash et al. Handbook on Stress and Anxiety. (San Francisco: Jossey-Bass Publishers, 1981), p. 128.

adjusting and adapting to stressful situations increases susceptibility to a variety of stress-related illnesses. While research into the links between stress and illness is still unfolding, stress has been directly or indirectly associated with such illnesses and diseases as high blood pressure, ulcers, coronary heart disease, asthma, multiple sclerosis, diabetes, and a range of psychiatric disorders. Excessive stress has also been thought to be a factor in a number of widely experienced conditions, including headaches, colds, diarrhea, and constipation.

Just as too much stress can predispose people to illness, too little challenge, stimulation, and change can also threaten health. Learning to manage the naturally occurring stressors of life and to find the levels of stress that help us function optimally and healthfully is a major health task throughout life.

Because change is a constant in adolescence, the potential for experiencing stress during this time is particularly great. This module is therefore intended to help adolescents understand the meaning of stress in their lives, to help them see the critical relationship of stress to short- and long-term health, and to introduce them to a variety of techniques and behaviors to help manage and minimize the effects of stress.

In Handling Stress, we emphasize three important kinds of stressors: situational, psychological, and environmental. We clarify the role that perception plays in the experience of stress and present the relaxation response and assertive communication techniques as two stress management skills. The module also describes the role of diet, exercise, and sleep in the reduction of stress and the promotion of health.

Individual perception of stressors deeply influences how each of us reacts to them. The strident sound of rock music excites some, disturbs others. New architecture can alarm us by its cold, alienating attributes--or stun us by its ingenuity. Crowding makes some people (and most Americans) feel agitated; in Tokyo and Hong Kong people are not usually upset by it. In fact, for the !Kung tribe in Africa, crowding is desirable. So, adjustment in perceptions about stressors can sometimes make the difference between healthy and unhealthy responses. For example, if adolescents have the perception that they must conform to win the peer group's approval, they may experience intense stress. If they feel they have a choice about the ideas and behaviors they choose, independent of what their friends believe or do, their stress may be decreased.

Learning to handle excessive stress (which we call "distress") can make the difference between being a healthy individual and

a constantly agitated one--one who may be predisposed to a stress-related illness in adult life. One technique for handling stress is the relaxation response, developed by a doctor. This response is easily learned, and can be performed anywhere. (It is also recommended for teachers.) The other technique involves assertive communication: a healthy "I-affirming" way of stating needs without attacking others. This technique helps people to ventilate stressed feelings, as well as to make simple statements or requests, and can facilitate the resolution of conflict.

Eating regular and well-balanced meals helps the body to function smoothly. It has been said that stress and eating do not mix. Chemical reactions produced in response to stress interfere with normal digestion. While some people lose their appetite and greatly reduce their food intake under stress, others respond to stress by compulsive overeating. Neither extreme is conducive to health and fitness. Both a balanced diet and regular exercise are important to maintaining health. Under stress, muscles tighten and cramp. Exercising helps to keep muscles conditioned so that they are more resistant to the effects of stress. Sustained exercising also stimulates the production of chemicals in the body which act as natural pain killers and produce a general sense of calm and well-being. By establishing healthful eating and exercise patterns, we can do a great deal to control the amount of stress we experience.

Although most of this module addresses issues of individual and interpersonal stress, we also include a range of optional activities to expand students' awareness of the impact they can have on their schools, their communities, and the wider environment. We want students to ask: How can we minimize the effects of large environmental stressors over which we <u>seem</u> to have no control: the noise and overcrowding of our cities, the isolation and loneliness of remote villages? Research is beginning to show that our adaptation to negative stressors may be hazardous to our health. The famous Midtown Manhattan Project suggests that nearly twice as much alcoholism, tuberculosis, accidental death, and delinquency occurs in the densest area of the city. Many stress-related behaviors and diseases are also characteristic of isolated and lonely rural environments.

One goal of this module is to demonstrate that <u>passive acceptance</u> of negative conditions is <u>not</u> a solution to them. Often, effective action by individuals and communities can help to reduce the threat posed by potent stressors in our environment; meaningful involvement can sometimes lead to changes in the community. In sections of some cities, good planning has reduced stress and created living spaces in which people feel comfortable.

A sense of belonging, of commitment to other individuals in a community can also make an immense difference in the way that stress is experienced. For both human beings and animals, a close-knit community seems to act as a cushion between individuals and stressors. Some studies of pigs, for example, reveal that when these animals are separated from their "support group," they suffer, refuse food, and withdraw. We want adolescents to perceive that being part of an accepting community can alleviate stress in themselves, and that being "carriers" of good will and support in turn helps to relieve the stress of others.

The activities in Handling Stress are designed to help adolescents understand the meaning of stress and to develop the attitudes, knowledge, and skills to reduce the negative effects of stress. In that way, inevitable life change can be a stimulus for growth and health now and throughout their adult lives.

Goals of the Module

This module will:

- Make it clear to students that stress is a constant part of life.
- Help students understand that stress can be experienced both positively and negatively--that it can be a source of both energy and discomfort.
- Increase students' awareness that stress is linked to health.
- Help students identify and evaluate special sources of adolescent stress.
- Help students discover areas of stress in their own lives.
- Enable students to recognize signals indicating that stress is becoming distress.
- Present students with options for minimizing and managing stress.
- Help students discover the role that perception plays in reactions to stress.
- Help students discover ways to minimize stress, including relaxation techniques and assertive communication skills.
- Increase student awareness of the potential role of diet, exercise, and sleep in the reduction of stress.
- Help students to change unhealthy reactions to stress, and to work to alleviate undesirable stress in school, the community, and the larger environment.

Module Overview

ACTIVITY	DESCRIPTION	INSTRUCTIONAL METHOD	# OF CLASS PERIODS
One			
Stress, Stressors, and Distress	By responding to hypothetical situations, students experience the feeling of stress. They then distinguish between and define the terms stress, stressor, and distress.	Written exercise, mini-lecture, discussion, stress books.	1
Two			
Causes of Stress	Students investigate sources of stress at different ages and compare their findings. They compile "inside" and "outside" views of stress in their own lives through personal interviews.	Discussion, class poll, self-inventory, observer inventory	1
Three			
Stress and Your Health	Students learn about the stress response and the relationship between stress and health.	Mini-lecture, stress poster, discussion	1

NOTE: The numbers of class periods noted for each activity are suggestions only. Teachers are urged to make their own determinations, based on the interests and abilities of their students.

ACTIVITY	DESCRIPTION	INSTRUCTIONAL METHOD	# OF CLASS PERIODS
Four			
Minimizing Stress: Sometimes It's How You Look At It	Through a perception exercise, students discover the role of perception in the creation and handling of stress.	Perception exercise, small-group work, discussion, scripted scenes, writing	1
Five			
Minimizing Stress: Relaxation	Students become aware of the importance of relaxation in controlling some of the physiological symptoms of stress; they practice the relaxation response and a technique for producing deep muscle relaxation.	Mini-lecture, relaxation exercises	1
Six			
Minimizing Stress: Assertive Communication	Students discover the effectiveness of assertive communication by practicing its techniques.	Diaries, mini-lecture, role play	1 (or 2)

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ACTIVITY	DESCRIPTION	INSTRUCTIONAL METHOD	# OF CLASS PERIODS
Seven			
Diet, Exercise, and Sleep: General Guidelines and Personal Prescriptions	Through case studies students see the potential use and misuse of diet, exercise, and sleep in response to stress. They then construct a chart to reveal some of the relationships between diet, exercise, and sleep, and stress and health.	Case studies, class discussion, chart making	1
Eight			
Changes	Students identify their most common stressors and look for changes in their attitudes and behaviors toward stressors. They sign a contract for changing a stress-related condition or behavior. Optional: The class looks at environmental stressors in the school and community and investigates ways of dealing with them.	Stress Books, contracts Optional: Mini-lecture, small-group discussion projects	1 (with additional optional activities)

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Activity One

Stress, Stressors, and Distress

Objectives

Cognitive: Students will:

- Be able to define stress, stressors, and distress.
- Know that prolonged exposure to stressors can affect health.
- Understand that stress is a crucial part of life that cannot be avoided.
- Understand that stressors may be experienced both positively as well as negatively.

Affective: Student will:

- Value the ability to identify their personal stressors.
- Develop a heightened appreciation for the role that stress can play in their lives.

Skills: Students will be able to:

- Recognize their own responses to stress.

Activity at a Glance

By responding to a series of stress statements, students have an opportunity to experience the stress response and begin to identify events that they perceive negatively or positively. They learn to define and distinguish the terms stress, stressor, and distress, and create "Stress Books" as a vehicle for recording and analyzing their daily stressors and stress responses during the time they are using the module.

Preparation

1. You may want to read The Stress of Life by Hans Selye, M.D. (New York: McGraw-Hill, 1976) which is a useful source book on the physiology of stress, The American Way of Life Need Not Be Hazardous to Your Health by John Farquhar (New York: Norton, 1979) which provides a good discussion of contemporary stress and reducing its effects; and Child Stress by Mary Susan Miller (New York: Doubleday, 1982) which provides a helpful perspective on the effects of stress upon children.

2. Have on hand paper, one sheet per student for evaluating stress statements, and 10 to 12 sheets per student plus staplers and magic markers for making "Stress Books."

Procedure

1. Introductory Stress Statements

Ask students to close their eyes and pretend that they are actually receiving the following news. Ask them to pay particular attention to how they feel as you read each statement. Do they recognize any changes in their bodies (e.g., muscle tightening, increased heartbeat)? Do they feel happy or sad? Angry or disinterested? As you read each statement, pause for several seconds to give students time to notice their responses.

You have won $1,000.
You got the job you applied for last week.
You have failed history.
You won the national science award.
Your mother has to go into the hospital for some important medical tests.
Your parents bought you a car.
Your boy/girl friend has accepted a date with someone else for Friday night.
You are moving to another city.
Your teacher will be taking a leave of absence.
Your were arrested for speeding.
Your sister/brother is coming home from the Navy.
Your stepfather is bringing his children to meet you.
A kid from another school has threatened to beat you up.
You do not want to smoke dope, but at a party, everyone is pressuring you.
You have been feeling down for a long time; you are in the waiting room at the counselor's office.
You are about to give a speech to the entire school.

You were not chosen for the class speaker at graduation.
A hurricane is coming.
School has been canceled because of a teachers' strike.
Your sister/brother/friend has been drinking heavily, and tonight you are going to talk about it.
You have been accused of taking something, but you didn't do it.
You are about to try parachuting.
You have been invited to a party by someone special.

After you have finished reading the list, ask:

- What do these announcements have in common? (Emphasis: They are all out-of-the-ordinary events, pleasant or unpleasant, that will probably produce some change in feelings or behavior.)

- What physical or emotional changes did you experience as you listened to the different statements (e.g., rapid heart beat, chills, excitement, fear, sadness)? Point out that they are having a firsthand experience of the stress response.

- Which announcements are experienced positively? Which seem to be negative? (Emphasis: These events will not have the same meaning for everyone. Reactions will depend on personality, family attitudes, predisposition to certain feelings, mood at the time, expectations, perceptions, etc.)

Next, ask students to take the sheet of paper you have given them and divide it into four columns. They should label column #1 Positive and column #3 Negative. Then give students time to write down the announcements they perceived positively and the ones that seemed to be negative. In columns #2 and #4, they should indicate the reasons for their response. These events will not have the same meaning for each person. A brother or sister returning home from the service can be a happy or distressing time, depending on the relationship between the two. The prospect of moving to another city can be exciting or frightening.

Tell students not to worry about trying to remember all the items. The ones that stick in their minds are probably the ones that are most important to them and thus have the greatest potential for producing stress. When most students are finished, go through some or all of the statements, asking students alternately to raise their hands if they put the news in the positive column, or the negative one. Note those events on which there is general agreement. Where there are differences in perception, ask some students to share their reasoning. Students should begin to see that not all events are looked at in the same way.

2. Notes for Mini-Lecture

In preparation for the mini-lecture, ask students to think about all the ways they use the words stress, stressful, or distress, or have heard others use them, or have seen them in print. Have them jot down a one- or two-sentence definition of the term stress as they now understand it. Tell them that you will be asking them to rewrite the definition after they have heard the mini-lecture.

STRESS, STRESSORS, AND DISTRESS

You have probably heard the term "stress" used in more than one way. "Working in a noisy factory can be very stressful." "Fran has been under a lot of stress since she lost her job." In most cases, stress has been used to describe a negative pressure that makes the person experiencing it feel tense or anxious.

Today we know that stress is any demand that requires some kind of physical or emotional readjustment. A stressor, an event that produces a stress reaction, can be pleasant or unpleasant. The chemical reaction and its physiological effects are the same whether the stressor is perceived as positive or negative. Failing an exam, which we generally think of as an unpleasant experience, and meeting someone we really like, which is usually pretty exciting, can both stimulate the release of chemicals in the body which create the response called "stress." When these and other events, or stressors, create too much discomfort, we describe the excessive amount of stress we feel as distress.

Wide ranges of experiences can be stressful. What is stressful for one person may not be stressful for someone else. For some, coming to school can be an unsettling experience--especially on days when there is going to be an exam. For others, the challenge of taking a test can reduce the stress created by normally uneventful school days. You see, stress can be created both by too many and by too few demands. Everyone needs some degree of change and stimulation to keep going. In fact, a moderate amount of stress is necessary for high performance: stress-related feelings of fear and excitement experienced by an actor just before curtain call, or by an athlete before the opening whistle, help his or her mind and body rise to the demands and challenges of the occasion.

> But too many stressors at one time, or constant stress over time, can wear us down and make us susceptible to illness. Many health researchers believe that our inability to manage stress plays some part in the onset or aggravation of such diseases as high blood pressure, ulcers, coronary heart disease, and a variety of psychological disorders. Since stress is an unavoidable part of life, learning to adapt to stressful situations and developing skills to reduce stress so that it does not become distress are important parts of preventing disease and promoting health.

After the mini-lecture, ask students to write the definition of stress again. Ask if they can also define stressor and distress. In a brief follow-up discussion, focus on these questions:

- Did your definition of stress change?
- What did you learn about stress that you did not know before? (Key points: Stress cannot be avoided; stress can be created both by pleasant and unpleasant events; some level of stress is necessary for living; excessive amounts of stress at any one time, or the accumulation of stress over time, can lead to illness.)

3. Making Stress Books

Distribute paper (10-12 sheets per student), staplers, and magic markers. Tell students they will be making Stress Books and using them to keep a record of the stressors they experience in their own lives. They will also use the books to record how the stressors make them feel and how they act when they feel certain kinds of stresses. Every day they are using the module, students should keep a record of their stressors. At the end of the module, they will have a chance to look back through this record to see what kinds of events they find uncomfortable, where they tend to feel most stressed, and how they handle stressful situations. Since some of the information students will be recording may be private, insure students that you will not be collecting the Stress Books. You will, however, spot-check to see that they are keeping a daily record. From time to time, you will ask them to share some of the things they learn with the class. The Stress Books should be brought to every class. To help students organize their books, write the categories below on the board, suggesting that they divide each page of the Stress Book into three columns:

Stressor (Activity, event, interaction)	Responses (What I felt/how my body acted)	Behavior (What I did)
Example:		
Giving a speech	My heart pounded. I felt anxious.	Had trouble getting to school on time. Felt sick during third period. Asked a friend for moral support. Gave the speech.

Ask students to put the day's date at the top of the page and to date each subsequent page to correspond to the days they will be using them.

After you have gone over the example for students, tell them to write down their own stressors, responses, and behaviors for the day. Emphasize again that stressors can be pleasant or unpleasant, large and small, from situations outside of themselves or from feelings they have inside. Remind them that they can be frank; they will not be sharing the information they enter.

4. Homework

Students should complete the day's stress record for homework. They can also decorate their books, if they like, and should feel free to add categories that seem important to them. For example, they may want to keep track of the place the stress was experienced (at home, in school, at work) and who or what was involved in the stressful situation. When they review the Stress Books at the end of the module, they can look for patterns.

Optional. In preparation for the next activity, students can also poll parents, close friends, and significant others about how stress affects them. This information can be recorded on the extra sheets of paper at the end of the Stress Books.

Activity Two

Causes of Stress

Objectives

Cognitive: Students will be able to:

- Understand that life events can create stress, and that specific events have the potential to create different amounts of stress.
- Cite life events with the greatest potential impact for adults, adolescents, and younger children.
- Understand some of the special stresses of adolescence.
- Recognize signs of stressed behavior in themselves.

Affective: Students will:

- Accept that stress is part of life.

Skills: Students will be able to:

- Analyze and compare various sources of adult, childhood, and adolescent stress.
- Evaluate the degree to which they are experiencing stress.

Activity at a Glance

After looking at lists of life events with the greatest potential impact on adults and elementary school children, and taking a class poll, students evaluate stressors in their lives. By doing a self-inventory, students begin to recognize levels of stress in themselves.

Preparation

1. Duplicate "Life Events with the Greatest Potential Impact for Adults and Elementary School Children" and "Life Events with the Greatest Potential Impact for Senior High Students," a copy for each student, or make transparencies for the whole class to view. (Note that all materials to be duplicated for student use in each activity appear on boxed pages at the end of the activity.)

2. Duplicate "Gauging Stress and Tension," a copy for each student.

3. Have available sheets of paper and some pencils. (Note: To protect students' privacy during the class poll, it is important that the paper be of uniform size and color, and that all students use either pencils, or pens with the same color ink.

Procedure

1. Class Discussion: Stress at Different Ages

Distribute "Life Events with the Greatest Potential Impact for Adults and Elementary Age Children" (or project the transparency so everyone can see it). Explain that the potential impact of an event is the product of how frequently the event happens and how much adjustment is needed to deal with it--in other words, how stressful it is. Some events, like the death of a parent, require a great deal of adjustment for adolescents, but because they happen so infrequently, their potential impact is not as great as less stressful events, like breaking up with a boy friend or girl friend, that happens more often. You may also want to tell students that the list of adult life events represents responses from a sample of almost 1,000 adults. The list of life events for elementary school children reflects the experiences of teachers, pediatricians, and mental health workers. (The senior high school list, which they will be getting later in the session, was compiled by the same methods, except that the students themselves evaluated the life events.)

Ask students to look at the adult list first and discuss the following:

- What do you notice about these ten life events with the greatest potential for creating stress in the lives of adults? (Emphasis: The majority of events deal with family

issues. Other events are concerned with health, money, and work. Seven of the ten items could be positive or negative experiences (e.g., change in health of family member, change in financial state, change in arguments with spouse, vacation, gain of new family member, change in work responsibilities, outstanding personal achievement.)

- How do you think your grandparents or great grandparents might have rated these events? (Emphasis: They may not have felt comfortable acknowledging sexual difficulties. Vacations may have been less frequent, although they may have necessitated more adjustments.)

Now ask students to look at the children's list and discuss the following:

- How are the life events with the greatest potential for creating stress for elementary school children different from or similar to the list for adults? (Emphasis: School is a prominent issue for this age group. Arguments with significant others and changes in financial status are stressful for both children and adults.)

- Thinking back to when you were in elementary school, would you have rated these events in a similar way?

2. Taking a Class Poll: Stress in Adolescence

Ask students to think for a minute about some of the events that happen in their lives that necessitate stressful readjustments. If young children and adults have particular events that occur frequently and cause them stress, do adolescents also have particular issues and concerns? Remind students of their Stress Books and ask them to consider which of the stressors they have listed are especially relevant to teenagers in general.

Do not ask for oral responses; instead ask students to print in descending order greatest to least (i.e., potential impact) the ten events in their lives that tend to occur frequently and necessitate stressful readjustments. Tell students to number their responses 1 through 10. Assure them that their privacy will be kept because they are all printing on paper of the same size. A volunteer or volunteers should collect the papers and score the responses as follows: 10 points for every number 1 response, 9 points for every number 2 response, 8 points for every number 3 response and so on.

Add up the total score for every similar response, i.e., if breaking up with a boyfriend or girlfriend is number 1 on four papers, number 3 on two papers and number 10 on one paper, the total score for this response will be 65 (40 + 24 + 1). Then

rank order the responses so that the item with the highest total score is the life event with the greatest potential impact for the class.

Write the responses on the board. Write the ten responses with the highest scores on the board. For instance:

1. Parents divorcing (80)
2. Breaking up with a boy friend or girl friend (72)
3. Failing a major subject in school (50)
4. Fighting with a friend (26)
5. Deciding how to behave with a member of the opposite sex (22)

Ask the class:

- What does this poll tell you about the life events with the greatest potential impact for the class?

- How does your list compare with the lists for children and adults? What are the similarities? Differences?

Now pass out "Life Events with the Greatest Potential Impact on Senior High Students" and ask students to look for commonalities and differences between this list and the list for their class. Chances are they will discover some of the special sources of stress in adolescence. (Emphasis: The importance of others their own age--e.g., dates, special relationships, friends--the prominence of events related to school, and the emergence of drugs and alcohol as particular sources of adolescent life changes.)

3. Homework: Doing Inventories/Filling in Stress Books

Self-Inventory. Pass out copies of "Gauging Stress and Tension," which has two parts: Self-Inventory and Observer Inventory. Explain to the class that knowing whether you frequently feel or act stressed can be beneficial to your health. This test can help you identify the range of stress or tension in yourself. Tell students to fill out the Self-Inventory for homework, and to score it (keeping the results private if they choose) according to the scoring information at the bottom of the handout.

Note: Be sure to point out to students that they should not judge themselves or others on either the self-inventory or the observer rating. We all experience stress in a variety of ways. Some people are tense a lot of the time, but that does not mean that they are ineffective, less productive, or inferior in any way. By nature, some people are more relaxed.

Observer Inventory. Ask students to have someone who knows them fairly well fill in the Observer Inventory; a brother, sister, parent, guardian, or friend would be ideal. The observer rating measures perceived behavioral traits, or how people appear to handle stress, and may give students some useful insights about themselves. Tell students this inventory, together with the one above, should bring them closer to an understanding of the extent of stress in their lives.

Stress Books. Remind students to fill in another page.

LIFE EVENTS WITH THE GREATEST POTENTIAL IMPACT FOR ADULTS AND ELEMENTARY SCHOOL CHILDREN

Adults*	Elementary Age Children**
1. Change in health of family member	1. Beginning another school year
2. Personal injury or illness	2. Outstanding personal achievement
3. Death of a close family member	3. Beginning school
4. Change in financial state	4. Move to a new school district
5. Sexual difficulties	5. Increase in number of arguments with parents
6. Change in arguments with spouse	6. Death of a grandparent
7. Vacation	7. Mother beginning to work
8. Gain of new family member	8. Serious illness requiring hospitalization of a parent
9. Change in work responsibilities	9. Change in parents' financial status
10. Outstanding personal achievement	10. Brother or sister leaving home

*Compiled from M. Masuda, and T. Holmes. "Life Events: Perceptions and Frequencies," Psychosomatic Medicine, Vol. 40, No. 3, pp. 236-261, 1978.

**Compiled from R. Dean Coddington. "The Significance of Life Events as Etiological Factors in the Diseases of Children--II," Journal of Psychosomatic Research, Vol. 16, pp. 205-213, 1972.

LIFE EVENTS WITH THE GREATEST IMPACT FOR SENIOR HIGH STUDENTS*

1. Breaking up with a boy friend or girl friend
2. Becoming involved with drugs or alcohol
3. Increase in number of arguments with parents
4. Beginning senior high school
5. Beginning to date
6. Outstanding personal achievement
7. Not making an extracurricular activity he/she wanted to be involved in
8. Death of a close friend
9. Change in parents' financial status
10. Brother or sister leaving home

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*Compiled from R. Dean Coddington. "The Significance of Life Events as Etiological Factors in the Diseases of Children--II," Journal of Psychosomatic Research, Vol. 16, pp. 204-213, 1972.

GAUGING STRESS AND TENSION

SELF-INVENTORY*

Circle the number in the box that most accurately describes how often you engage in these behaviors.

BEHAVIOR	Often	A few times a week	Rarely
1. I feel tense, anxious, or have nervous indigestion.	2	1	0
2. People at work/school/home make me feel tense.	2	1	0
3. I eat/drink/smoke in response to tension.	2	1	0
4. I have tension or migraine headaches, or pain in the neck or shoulders, or insomnia.	2	1	0
5. I can't turn off my thoughts at night or on weekends long enough to feel relaxed and refreshed the next day.	2	1	0
6. I find it difficult to concentrate on what I'm doing because of worrying about other things.	2	1	0
7. I take tranquilizers (or other drugs) to relax.	2	1	0
8. I have difficulty finding enough time to relax.	2	1	0
9. Once I find the time, it is hard for me to relax.		Yes 1	No 0
10. My day is made up of many deadlines.		Yes 1	No 0

Maximum total score = 18. My total score _____

OBSERVER INVENTORY**

Circle the number in the box that most accurately describes how often _____ engages in these behaviors.

BEHAVIOR	Never	Seldom (once or twice a week)	Often (practically every day)	Very frequently (at least once a day)
1. Hurriedness: Eats and/or moves fast.	0	1	2	3
2. Talking: Speaks fast, in an explosive manner, repeats self unnecessarily, and/or interrupts others.	0	1	2	3
3. Listening: Has to have things repeated apparently because he/she doesn't pay attention.	0	1	2	3
4. Worries: Expresses worries about little things and/or things he/she can do nothing about.	0	1	2	3
5. Anger: Gets mad at self and/or others.	0	1	2	3
6. Impatience: Tries to hurry others and/or becomes frustrated.	0	1	2	3

SCORING FOR BOTH:

14-18 points	considerably above average
10-13 points	above average
6-9 points	average
3-5 points	below average
0-2 points	considerably below average

*Adapted from John Farquhar, The American Way of Life Need Not Be Hazardous to Your Health (New York: Norton, 1978). Reprinted with permission.

**Adapted from Virginia Price, as quoted in John Farquhar, The American Way of Life Need Not Be Hazardous to Your Health.

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Activity Three

Stress and Your Health

Objectives

Cognitive: Students will be able to:

- Understand the relationship between stress and health.
- Cite four chronic, stress-related diseases.
- Name the three stages of the stress response.
- Identify physical, emotional, intellectual/perceptual, and behavioral symptoms of stress.
- Identify signs of coping with stresses and strains successfully.
- Understand some of the reasons/feelings behind particular stress responses.

Affective: Students will:

- Accept the relationship between stress and health.
- Appreciate the ways in which they can optimize health outcomes by managing stress successfully.

Skills: Students will be able to:

- Evaluate their own and others' responses to stress.
- Recognize the stress symptoms in their behavior or responses to stressful situations.

Activity at a Glance

By listening to a mini-lecture and looking at a poster students learn about the stress response and the potential relationship between stress and health. Through class discussion and review

of their Stress Inventories and Stress Books they apply their knowledge of the stress response to their own behaviors, attitudes, and feelings.

Preparation

1. Hang the Stress Posters (supplied with the module) on opposite sides of the room where they can be seen by everyone.

2. Prepare a brief handout or transparency of the three stages in the response to stress (below and on the next page), or write the stages on the board.

3. Duplicate "Stress Symptoms" and "Signs of Successfully Coping with Stresses and Strains," for each student.

Procedure

1. Relating Stress and Health

Introduce the activity by telling students that research has indicated that continuous exposure to life events that require changes and/or the accumulation of stressors over time is significantly associated with the onset of illness. While research into the links between stress and illness is still unfolding, stress has been directly or indirectly associated with such illnesses and diseases as high blood pressure, ulcers, coronary heart disease, asthma, multiple sclerosis, diabetes, and a range of psychiatric disorders. Excessive stress has also been thought to be a factor in a number of widely experienced conditions, including headaches, colds, diarrhea, and constipation.

Recognizing the warning signals of stress, managing stress productively, and knowing the signs of successful coping can help reduce one's chances of developing chronic, stress-related illnesses.

Explain that the body goes through three distinct stages when suddenly exposed to a stressful situation. (You may want to write the stages on the board or prepare a handout or transparency for students.)

- Alarm Reaction. At first the body simply reacts. Typical symptoms of this stage of stress include: loss of muscle tone, decreased temperature, and lowered blood pressure. Then the body mobilizes its defenses, secreting hormones

such as adrenalin. An increase in heartbeat, fast breathing, and tensed muscles are common at this point in the body's response to stress.

Ask students if they can recall situations when they experienced the alarm reaction: perhaps they heard a strange noise when they were home alone, maybe they arrived in class one day and discovered they were having a surprise test. Point out that all of the events they describe have the quality of being unexpected and each requires some kind of physical and/or emotional readjustment.

- Stage of Resistance. During this stage the body works to reduce or alleviate the stress symptoms. All of the energy being focused on this activity, however, leaves the body more susceptible to other intrusions. Many times when you are under a lot of stress, for instance, you will develop colds or other illnesses because your general resistance is lowered.

- Stage of Exhaustion. Since you cannot adapt indefinitely, exhaustion sets in if a stressor is particularly severe or prolonged. In this stage the body is particularly vulnerable to illness.

Because constant repetition of this cycle gradually wears the body down, the more stress you experience, the more vulnerable you are to disease.

2. Stress Poster

Turn students' attentions to the Stress posters you have put up in the room and ask that they follow along as you read about the Stress Response. Alternately, ask for three volunteers to read out loud. The first volunteer can read "The Stress Response," the next can read "Stress and Health," and the third can read, "Today and Yesterday."

Ask students to reread the poster to themselves and to look closely at the illustrations:

- How can you tell that each person in the poster is responding to stress?

- In the drawing of Type A behavior (bottom left corner of the poster), how is the person manifesting stress?

- What is creating a problem for the man and woman in the top center illustration? How can you tell the situation is stressful? Are there any other ways that the situation could be handled to minimize its stressfulness?

- Why is so much stress involved in the job of air controller?

- Even though all of the people in the illustrations are doing something very different, why is each experiencing the stress response?

3. Class Discussion

Pass out "Stress Symptoms" and "Signs of Successfully Coping With Stresses and Strains." Ask students to refer back to the Stress Inventories from Activity Two and to their Stress Books as they go through the handouts.

- Do they recognize the stress symptoms in how they behave or respond to stressful situations?

If students are comfortable sharing, ask them to give several examples from their Stress Books of situations where they showed symptoms of stress. Do not insist that anyone share information that he or she thinks is personal. After several students have shared, ask:

- Why do you think you might have reacted in the way you described?

Guide the discussion to bring out the following points if students don't come up with them themselves:

Sometimes it is easier to be angry and irritable than to take the risk of stating what you want. Learning to communicate directly and assertively (Activity Six) can help to reduce stress that results from unclear or incomplete communications. Sometimes unexpressed anger gets played out in careless behavior, like reckless and aggressive driving. Adults as well as adolescents can abuse drugs or alcohol by using them to escape from or cover up stressful feelings. Emphasize the danger of trying to avoid or mask the symptoms of stress. The use of alcohol and other drugs, for instance, interferes with the natural psychological and physical warning signals, allowing stress to build up unnoticed.

Now have everyone look at the "Signs of Successfully Coping with Stresses and Strains." Read each sign out loud and then ask for examples of when <u>these</u> behaviors, feelings, or attitudes were experienced. Since adolescents can be self-conscious about sharing positive experiences, you may need to support and encourage them to contribute. You can start off with an example from your own life. If students are still having trouble coming up with examples of successful coping with stress, ask them to look back to their Stress Books and consider which coping behaviors they <u>could use</u> to reduce their daily stressors. Also ask students to consider:

- Why do you think some of these coping behaviors or attitudes might be hard to adopt? (Showing friendliness and love can make you vulnerable to rejection. When you take responsibility, you are responsible for both success and failure. Exercising as a form of fitness and relaxation may be difficult or time-consuming.)

Use any remaining time for students to update their Stress Books and/or for continued discussion.

STRESS SYMPTOMS*

Physical

Increased heart rate--pounding
Elevated blood pressure; sweaty palms
Tightness of chest; headache; diarrhea
Tightness of neck or back muscles
Trembling, tics, or twitching
Stuttering, other speech difficulties
Nausea and/or vomiting
Sleep disturbance; fatigue
Accident proneness; slumped posture
Shallow breathing; nervous laughter
Susceptibility to minor illness
Dryness of mouth or throat

Emotional

Irritability; lowered self-esteem
Angry outburst; depression; jealousy
Suspiciousness; restlessness; withdrawal
Anxiousness; diminished initiative
Feelings of unreality and overalertness
Lack of interest; tendency to cry
Reduction of personal involvement with others; critical of oneself and others
Self-deprecation; nightmares

Intellectual/Perceptual

Forgetfulness; preoccupation; blocking
Error in judging distance
Diminished or exaggerated fantasy life
Reduced creativity
Lack of concentration
Diminished productivity
Lack of attention to details
Orientation to past

Behavioral

Increased smoking; aggressive driving
Increased alcohol or drug use; carelessness

SIGNS OF SUCCESSFULLY COPING WITH STRESSES AND STRAINS**

Ability to carry out jobs efficiently
Ability to take responsibility
Ability to work under authority, rules, difficulties, and limits
Tolerance of frustration
Ability to adapt to changes
Reliability
Sense of belonging
Tolerance of others
Ability to show friendliness and love
Ability to take recreation, relax and sleep
Sense of humor and fulfillment
Self-direction
Reasonable sense of independence and self-reliance

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*Help Yourself: A Series on Stress. Materials development coordinated by Kate Rafferty, New Hampshire Department of Public Health Services, and Mary Jo Herde, University of New Hampshire Cooperative Extension Service. Materials edited by Lisa Sarasohn, New Hampshire Office of Community Education, 1980.

**From Bostonia Magazine, December 1982.

Activity Four

Minimizing Stress: Sometimes It's How You Look at It

Objectives

Cognitive: Students will be able to:

- Define "perception."
- Understand the role of perception in creating or minimizing stress.
- Identify ways to alleviate stress overload, or distress.

Affective: Students will be able to:

- Recognize how perception can influence reactions to stress.
- Value in themselves the capacity for dealing with stress overload.

Skills: Students will be able to:

- Generate alternative ways of perceiving and responding to life events so that they do not become distressing.

Activity at a Glance

A perception exercise will graphically illustrate the impact of perception on one's experience of "reality." Then, through scripted scenes called "Stories," students will learn about stress and the role perception plays in dealing with it. They will have an opportunity to use their own experiences and their knowledge of stress symptoms to generate examples of the role of perception in creating stress.

Preparation

1. Duplicate "The Lady" and "Stories," one for each student.

2. Have on hand extra copies of "Stress Symptoms" from Activity Three.

Procedure

1. Perception Exercise

Pass out copies of "The Lady." Ask students to look at the illustration and then, by a show of hands, to respond to the following questions:

- Is the lady young or old?
- Is she pleasant looking or lined and tired?
- Does she seem to have a large nose or a normal-sized nose?

Chances are some students will look at the illustration and see the lines of an old lady, while others will see a pleasant-looking young lady. In fact, once students have settled on one interpretation, it may be hard for them to let go of that perspective long enough to see the alternative possibility. By going through this simple exercise, students will discover firsthand the role of perception in shaping their experiences.

Then have students think about another kind of perception, that of perspective. If you stand on a long, straight road or a railroad track, the road or tracks grow narrower and narrower as they recede into the distance. You know that in fact they do not change in width, but you perceive them to be narrower. Similarly, anyone who has been in an airplane or on top of a high building knows that the moving objects you recognize as cars and trucks at street level appear to be the size of ants from high above.

From visual perceptions and physical perspectives, go on to point out emotional points of view. How we see ourselves--valuable, unworthy, intelligent, boring--also affects how we perceive the world, and, in turn, how we behave in different situations. The "Stories" that students will be reading next all illustrate the role of perception in creating feelings of distress.

2. Small-Group Work and Discussion

Pass out copies of "Stories." Reiterate to students that our perceptions, how we view an event, can sometimes make the difference between feeling that something is acceptable or that it is distressing. Not feeling good about ourselves, for example, can make us misjudge situations. We may feel we need to do something we don't feel comfortable doing because we are afraid of not being liked. Family attitudes or cultural values can also affect how we perceive stressors. A person who is taught that occasional failure in the process of learning is normal, for instance, won't be distressed in trying something that doesn't work out just as planned. Instead, the person can perceive the failure as a way to learn.

Divide students into small groups. Ask the students to read the "Stories" carefully. Then discuss these questions:

- What seems to be the stressor in each story? What are the symptoms of overload?

- What role does perception seem to play in the creation of distress in these teens' lives?

Guide students toward the following points:

Allison has received a high honor, which is a positive life event. Because she perceives the honor as a sign to start competing with herself for more honors, she begins placing unreasonable demands on her energy. The loss of concentration signals that she may be experiencing distress.

John is experiencing an increasingly common stressor, which demands a change in his life. However, because he perceives (inaccurately) that he can change his parents' mind about divorce, he is becoming distressed, evidenced by sleep problems.

Moving is a stressor--for anyone. In this case, Joe is happy at first. But being excluded threatens him more than it would a person with a lot of self-confidence. Because he perceives that he has to earn the rural teens' regard by pretending to know about country life, he's adding extra demands to the already weighty demands of moving and adjusting to a new environment. Tightened muscles, especially when they are tight for a long time, can signal the onset of stress.

Louise is experiencing stress, and showing it by her anxious behavior. She has perceived (inaccurately) that to belong she must do what she thinks the group expects of her.

Ask students to think about the following points regarding the role perception plays in dealing with stressors:

- You need to modify perceptions that come from low self-regard, the need to be perfect, or feelings of inferiority--and other attitudes that are equally unhealthy, like those of the adolescents in the "Stories."

- But you also need to be aware that some perceptions that cause stress are healthy and accurate, and come from healthy self-regard. If you feel a great deal of stress because of an environmental stressor, like noise, it isn't the perception you need to change, but rather the condition.

3. Student-Generated Stories

Using their knowledge of stress symptoms and their own experience as guides, ask students to make up their own stories about adolescents whose distress is directly related to their perceptions of life events. Students should:

- Identify the life event that is being perceived in a way that generates stress.

- Describe the way the individual in the story is looking at the event that creates a stressful response.

- Indicate the physical, emotional, intellectual/perceptual, and/or behavioral symptoms of the stress response.

- Suggest alternative ways of looking at the event that might make it less stressful.

Refer students back to the handout "Stress Symptoms," or have additional copies available. Tell students to put their story on the front of the paper and to use the reverse side to offer suggestions for other ways the story character could view his or her situation. Point out that perceptions not only play a part in creating feelings of distress, but that they can sometimes mask or cover over situations or circumstances that are truly distressing, but possibly too painful to be faced. To avoid perceiving the problems in a relationship, for instance, a person may choose to believe that everything is great. Sometimes, the stress of trying to make something into what it isn't may begin to become evident (e.g., headaches, anxiety, depression); other times, a person's viewpoint can actually keep him or her from seeing alternatives to his or her misperceptions--as some students experienced in the perception exercise using "The Lady" illustration.

Give students ten minutes to complete their stories. Then, to avoid any unnecessary discomfort or embarrassemnt, collect all

of the papers and either read several, selected at random, or redistribute them and have students read each other's out loud or in silence.

Conclude by asking students:

- What is perception?
- How does perception influence whether an event is experienced stressfully?
- Without avoiding the realistic stress of life events, how can you look for positive and healthful ways of adjusting or responding to them? (Homework can be a challenge or a burden, for example, or helping a friend can be an opportunity or an obligation, depending on your perspective.)

THE LADY*

Originally drawn by W. E. Hill and published in Puck, November 6, 1905. First used for psychological purposes by E. G. Boring, "A New Ambiguous Figure," American Journal of Psychology, 1930.

STORIES

Allison

Allison gets the science award for the entire state, and is overjoyed. But she's sure she can improve on what she did, and hurriedly starts new projects, which she thinks will guarantee her the prize for next year. But here she is in history class, and she can't concentrate because she is working on a new science project in her mind. She can't get it right and says to herself "you dummy" under her breath. At the same time, her teacher says, "Allison, if you don't start paying attention, you're..."

John

When his parents separated, John was very upset, although he knew about all the conflicts between his parents. Since he wants to be a social worker, and has taken some preliminary courses, he feels he can untangle the situation if he only thinks long enough about it. It's now 3 a.m., and he's writing down changes he wants to suggest to them. He's been having a lot of trouble sleeping.

Joe

Joe moved with his family from the city to a rural town in Vermont, about which he feels delighted. The kids there know how to do things he's never even heard of. One day he asks "How many eggs did you get from the roosters today?" People laugh, and he feels his neck tighten the way it has since he started school. He mutters to himself, "What do these hicks know?" and slams the door, feeling very depressed.

Louise

Out on a beach one night, Louise is persuaded to try dope. She doesn't really want to--but doesn't know how to refuse. So she fakes taking a puff. She smiles. The next time it happens, though, she is afraid. She doesn't know what she's afraid of, and goes home, crying. She doesn't know why she's crying, but she can feel her heart pounding.

Activity Five

Minimizing Stress: Relaxation

Objectives

Cognitive: Students will:

- Identify relaxation techniques useful in the alleviation of the effects of stress.

Affective: Students will:

- Recognize how relaxation can reduce the effects of stress.
- Value in themselves the capacity for dealing with stress.

Skills: Students will be able to:

- Perform an exercise that evokes the relaxation response.
- Teach at least one exercise to another person, to advance the notion of stress relief.

Activity at a Glance

Through the mini-lecture, students learn the importance of relaxation in controlling some of the physiological symptoms of stress. Through practice, they also learn the "relaxation response" and a technique for producing deep muscle relaxation.

Preparation

1. Begin reading The Relaxation Response (New York: Avon, 1976), by Herbert Benson. You might also ask the school librarian to set out any other books on relaxation techniques.

2. Make sure the Stress Posters are still in place on opposite sides of the room.

3. If you plan to have students lie down to learn the relaxation response (Procedure step #3), you may want to have a supply of gym mats or blankets on hand.

4. Duplicate information on relaxation exercises included at the end of the activty. Post copies on the bulletin board and/or distribute them to students at the end of class.

Procedure

1. Describing Relaxation

Point out that while the perception activity (Activity Four) was aimed at reducing the likelihood of stress, relaxation helps people cope with stressed feelings after the fact.

Remind students that they probably already have a sanctuary, or a "time out" relaxation activity, which they turn to when they feel stressed or distressed. Ask students to describe how they relax, and how it seems to affect their bodies.

- Where do you relax?
- What exactly do you do?
- Where did you learn how to relax?

2. Notes for Mini-Lecture

RELAXATION

Some people try to relieve feelings of stress by smoking, drinking alcohol, taking pills, or overeating. While these remedies may make some people feel better temporarily, in the long run they do not remove the stressors, they do not change our personal perceptions, and they do not make stressful life events disappear. Taking a drink, for example, may make a person feel relaxed. However, because alcohol is a depressant, taking a drink does not contribute to the positive solution of problems.

Ask students to refer again to the Stress Poster. Then continue:

A better response to stress is conscious relaxation. In the relaxation response,* there are specific body changes, including decreased heart rate, lower metabolism, and a decreased rate of breathing—all of which bring the body into healthier balance. Researchers believe that people can break out of a prolonged state of stress or distress by summoning this relaxation response, which is easily learned.

3. Learning the Relaxation Response

Students can remain in their chairs for this exercise, or you can push chairs to the side of the room so that there is an open space where students can lie down.

Important aspects of teaching a group relaxation exercise are the following:

- At first, people may feel "funny" and giggle, or make jokes and act nervously. Explain that feeling nervous about learning something new like this is natural.
- People must be far enough apart from each other to feel they will not be disturbed—so that they feel "safe."
- Turn off some or all of the overhead lights.
- Close doors and windows, if necessary, to make the room as quiet as possible.
- Remind the group that this exercise will become easier with practice; that sometimes people do fall asleep, although that's not the goal. The sleeping state is, in fact, different from the relaxation state they will be trying to achieve.

Now begin, reading the following instructions slowly to the students:

Assume a comfortable position. The best position is flat on your back on the floor. Your eyes should be closed and your arms should be loose at your sides. Uncross your feet and loosen any tight collars, belts, or footwear. Initially, lying flat on your back on the floor may seem uncomfortable, but you are urged to try it. Usually, after you start to

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*The term "relaxation response" was coined by Dr. Herbert Benson in his book entitled The Relaxation Response (referred to in the Preparation section).

relax you don't notice the hard floor, and this position is the best one for your body.

If you choose to sit in a chair, remember to uncross your legs and let your arms rest loosely at your sides.

Maintain a passive attitude. Do not worry about whether you are successful in achieving a deep level of relaxation. Maintain a passive attitude and permit relaxation to occur at its own pace. Do not try to work at relaxing. Disregard distracting thoughts and sounds for the time you have set aside.

Concentrate on a pleasing phrase or image. For some people a word formula such as "in" and "out" or "one" works well. Other people find visual images such as cloud formations useful for this purpose. Repeat the word or image effortlessly.

Breathe easily and naturally. Breathe through your nose, with your mouth open slightly. Keep your muscles loose, limp, and relaxed.*

After 10 to 15 minutes, tell students to open their eyes and sit up slowly.

Then ask:

- How did you feel before this exercise?
- What did you think about? Were any of you blank?
- How do your bodies feel now?

Ask students to refer back to their Stress Books. They should look at the column, "Behavior: What I Did," and take notes on the following questions.

- If you had used the relaxation response before reacting in your particular situation, would your behavior have been different?
- In the future, will you try using the relaxation response? If so, under what circumstances do you think it would be most helpful?

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*Adapted from Judy Ann Goth-Owens, The Stress Connection, Kid's Guide (East Lansing: Cooperative Extension Service, Michigan State University, 1980), pp. 36-37.

4. Trying Another Relaxation Technique: Deep Muscle Relaxation

If time permits, try deep muscle relaxation. This technique involves tensing specific muscle groups and then relaxing them. For each muscle group a method is described for creating tension and achieving relaxation.

Begin by having students assume the position for relaxation (eyes closed, sitting in their chairs or lying on the floor, in a quiet, passive attitude).

Then, go through the following for each muscle group twice.*

MUSCLE	TENSING METHOD
Forehead	Wrinkle your forehead. Try to make your eyebrows touch your hairline for five seconds. Relax.
Eyes and nose	Close your eyes as tightly as you can for five seconds. Relax.
Lips, cheeks, and jaw	Draw the corners of your mouth back and grimace for five seconds. Relax. Feel the warmth and calmness in your face.
Hands	Extend your arms in front of you. Clench your fists tightly for five seconds. Relax. Feel the warmth and calmness in your hands.
Forearms	Extend your arms out against an invisible wall and push forward with your hands for five seconds. Relax.
Upper arms	Bend your elbows. Tense your biceps for five seconds. Relax. Feel the tension leave your arms.
Shoulders	Shrug your shoulders up to your ears for five seconds. Relax.
Back	Arch your back off the floor for five seconds. Relax. Feel the anxiety and tension disappearing.

*The Stress Connection, Kid's Guide, p. 39

Stomach	Tighten your stomach muscles for five seconds. Relax.
Hips and buttocks	Tighten your hip and buttock muscles for five seconds. Relax.
Thighs	Tighten your thigh muscles by pressing your legs together as tightly as you can for five seconds. Relax.
Feet	Bend your ankles toward your body as far as you can for five seconds. Relax.
Toes	Curl your toes under as tightly as you can for five seconds. Relax.

At the end of the exercise, ask students to open their eyes slowly and look up. Ask:

- How did you feel during the exercise?
- How does your body feel now?

Alert students to other information about other relaxation techniques you have posted around the room and/or pass out copies of the handouts provided at the end of the activity.

5. Homework

The Relaxation Response and other relaxation techniques improve with practice. Students can increase their skills in using them by teaching someone else, like a friend, parent, sibling, or other important person. Ask students to teach somebody one of the two techniques they have tried in class. If there is adequate time at the beginning of the next activity, they can share results. Remind students to fill in their Stress Books. Are any of the skills, knowledges, or attitudes they have learned beginning to affect their experience of, or response to, daily life stresses?

DIAPHRAGMATIC BREATHING*

Description

One way to achieve the relaxation response is through diaphragmatic breathing. The instructions for this technique include several variations. Adapt this exercise so it works best for you.

Procedure

1. Assume the relaxed position (eyes closed, passive attitude, comfortable position, quiet room).

2. Begin to focus on your breathing. Allow your breathing to become regular and natural as you inhale and exhale through your nose. Remember that breathing is a peaceful, natural process.
   - Each time you exhale, allow some tension to leave your body, and allow the relaxation to come in.

3. As you begin to feel more and more relaxed with each breath, try one (or more) of the following vehicles to deepen your feeling of relaxation:
   - Imagine the air that comes to you as a cloud. The cloud comes to you, fills you, and then leaves you.
   - Imagine your lungs as a balloon (you may want to put your hand on your chest.) As you inhale your lungs expand like a balloon, and as you exhale your lungs deflate.
   - As you inhale say the word "in" to yourself. As your exhale say the word "out."

Try each of the above at different times to see which works best for you. For some people the visual images are more powerful, while for others the word formula (such as "in" and "out") works better.

Try to focus on one of these images or word formulas for several minutes. Tell yourself to relax more and more with each breath. You may discover that your mind will wander from the image or word from time to time. This is normal. Simply return to your word or image and continue to relax.

4. You may want to deepen your relaxation now by using one of the following methods:
   - Slowly count backward from 10 to 1. With each count allow yourself to feel heavier and more relaxed.
   - Imagine that you are on the top of a long, winding stairway. Picture yourself descending the steps. Feel a new wave of calm with each step that you take.

5. It is now important to return. You will now come back to the real world feeling calm yet alert. You will feel the benefits of this relaxation throughout the day. Come back to the room slowly by counting from 1 to 5, gradually becoming more alert. At the count of 5 your eyes should open. Get up slowly.

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*The Stress Connection, Kid's Guide, pp. 38-39.

AUTOGENIC RELAXATION*

Description

This technique involves the use of a word formula that acts as a reminder to each part of the body to relax.

Procedure

1. Assume the position for relaxation (quiet, eyes closed, lying on floor).

2. Although repeating the word formula may seem like a task, remember to maintain passive concentration.

3. Repeat the word formula in the sequence given below. This is done silently. Allow all your body parts to feel heavy, warm, and relaxed.

My right arm is heavy.
My right arm is heavy.
My left arm is heavy.
My left arm is heavy.
My arms are heavy and warm.
My arms are heavy and warm.
My arms are heavy and warm; warmth is flowing into my hands.
My arms are heavy and warm; warmth is flowing into my hands.
My legs are heavy.
My legs are heavy.
My legs are heavy and warm.
My legs are heavy and warm.
My breathing is calm and regular.
My breathing is calm and regular.
My body breathes me.
My body breathes me.
My breathing is calm and regular; I am at peace.
My breathing is calm and regular; I am at peace.
I am at peace.
I am at peace.

---

*The Stress Connection, Kid's Guide, p. 40.

QUICK RELAXATION TECHNIQUES*

Description

As you become more experienced at eliciting the relaxation responses, some quick methods of relaxation may be useful. This exercise describes several "quick release" techniques.

Procedure

These exercises take less time than the preceding methods, but they are most effective only after you have practiced the longer techniques and have become acquainted with your own body and how it tenses and relaxes. As you become better at relaxation with practice, it will take less time to achieve the relaxation response. You will still want to continue a regular routine of 15 to 20 minutes of daily relaxation, but the following suggestions can be supplemental.

Here are some pointers for review about all the exercises that follow.

Position — Get as comfortable as possible. Some of these exercises can be done while waiting in the doctor's office or at some other time when there's nothing to do but wait. It is not necessary always to lie down to do them.

Attitude — Remain passive. Just watch your mind work. Whatever thoughts come to mind are okay. Do not work at it, just let it happen.

Sounds — Sounds are a natural part of the environment--just take note of them and let them pass.

Breathing — Focus inward on breathing as a natural, easy process.

1. Whole Body Tension
   a. Tense everything in your whole body, stay with that tension, and hold it as long as you can without feeling pain.
   b. Slowly release the tension and very gradually feel it leave your body.
   c. Repeat three times.
   d. Describe how this feels.

2. Imagine Air as a Cloud
   a. Open your imagination and focus on your breathing.
   b. As your breathing becomes calm and regular, imagine that the air comes to you as a cloud--it fills you and goes out. There may be a color of cloud that you can imagine.
   c. Notice that your breathing becomes more regular as you relax.

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*The Stress Connection, Kid's Guide, pp. 40-41.

3. Pick a Spot
   a. With your head level and your body relaxed, pick a spot to focus on (eyes are open at this point).
   b. When ready, count five breaths backward. With each breath allow your eyes to close gradually.
   c. When you get to one, your eyes will be closed. Focus on the feeling of relaxation.

4. Counting 10 Breaths Back
   a. Allow yourself to feel passive and indifferent, counting each breath slowly from 10 to 1.
   b. With each count, allow yourself to feel heavier and more relaxed.
   c. With each exhale, allow the tension to leave your body.

5. Shoulder Shrug
   a. Try to raise your shoulders up to your ears.
   b. Hold for the count of four, then drop your shoulders back to normal position.
   c. Repeat as often as necessary.
   d. Vary this by rotating your shoulders down, and around—first one way, then another, then both at the same time.

6. Alternate Nostril Breathing
   a. Block the left nostril with one hand and inhale deeply through your right nostril for five seconds.
   b. Block both nostrils, holding your breath for five seconds.
   c. Repeat, beginning this time by breathing through the left nostril.

Activity Six

Minimizing Stress: Assertive Communication

Objectives

Cognitive: Students will be able to:

- Identify alternate ways of coping with stress.
- Cite strategies that help minimize stress.
- Identify assertive communication skills.

Affective: Students will:

- Recognize that some styles of behavior are more effective than others for dealing with stress.
- Value methods of minimizing stress in their own lives.

Skills: Students will:

- Improve their ability to be assertive.
- Identify ways to say "no" comfortably.

Activity at a Glance

Through "Diaries," a mini-lecture, and role plays, students learn about assertive communication and how to say "no."

Preparation

1. Duplicate for each student "Assertive Communication," "'I' Statements," and "Saying 'No'."

2. Look at the THTM module Living with Feelings, in preparation for the exercise using "'I' Statements." For Procedure step #5 you should have index cards for passing out to the class (one per student).

3. This activity can benefit from being spread over two sessions if time allows.

Procedure

1. Class Discussion

Ask for three volunteers to read the following "Diaries." "A" should be read quickly, nervously; "B" lethargically; and "C" matter-of-factly.

THREE DIARIES

(A)
Monday: Whew: My alarm didn't go off, so I didn't have time to eat. Called Greg for a ride to school. What an oaf--he slept late, too. This will ruin the whole day. Then the bus was late, so I ran down to the other one, and the stupid bus driver didn't stop. I got to school late. When Miss X asked me why, I said, "Well, why don't you try taking a bus sometime!" When lunch came, I didn't have time to eat because I wanted to work on the report. First I tried the library after school, so I could work there, but the stupid librairan said it was closing. Why can't they all get it in their heads that we need it open later? For heaven's sake, who do they think they are? So, to end the terrible day, I couldn't sleep. Oh, I just don't know. How can I ever get things done? I'll never amount to anything. I know it, I know it!

Tuesday. I'm all jittery. The report still isn't done. It has got to be perfect, or I just can't face myself!

(B)
Monday: The alarm clock didn't go off. Oh well, I overslept. I called Greg to see about a ride, but he couldn't give me one. Thay's the way it is, sometimes. I decided not to go to school. My report's late, but I can't talk to Miss X about it anyway, so I went back to sleep. I'd like to talk with her about it sometime--but she wouldn't have time for me anyway. I just can't finish it. Guess

I'll get a "D" again. What's the use of trying anyway? I am a loser and I know it. I'm sorry that I even try to do anything.

Tuesday: I had these nightmares again. I am trying to catch a train, but it passes me by. Just like the other dreams--when I am at the wrong station....

(C)
Monday: Overslept. I called Greg for a ride, but he overslept too. Guess we're two of a kind today. The bus was late, so I was late, but I explained why to Miss X and she wasn't angry. I've been getting ready to ask her something, so I've been practicing in front of the mirror. So I said to her, "I'm uneasy about this, but I just can't get this report done on time. Can you help me?" We talked, and she told me about some resources. After lunch I took a walk. Felt a little tense--threw some basketballs. It helped me relax. Then, after school, I went to the library to try to get those books she recommended. Closed early--cutbacks again. I was angry, but what can they do when there's not enough money to keep them open after school? So I found a place in the park, and started to do some thinking on the report again. Then I slept pretty well.

Tuesday: Today, I am going to try to finish. If I can't, I can't, but I am going to try.

Ask students to discuss the following questions:

- What seems to be the stressors in these environments? (Being late, the frustration of not being able to finish a report, the closed library.)

- How do A, B, and C, handle these stressors? (Emphasis: "A" seems to be coping ineffectively with stress, with angry outbursts and tenseness. "B" is giving up, withdrawing, and resigned to lower grades. "C," on the other hand, is relaxed but not excessively, and has discovered coping skills for minimizing stress.) In "C"'s life, important ways of minimizing stress are:

  - talking, sharing with others (the teacher)

  - anticipating, by preparing for the conversation with the teacher

  - taking time out for lunch and for relaxation and exercise

  - having a personal philosophy of life

- trying to communicate effectively

- finding a personal stress level (C knows that throwing basketballs can release tension).*

Ask students to look back at the self-inventories in their Stress Books.

- Which style do they seem closest to--A's, B's, or C's?

- What changes might they think about making?

2. Notes for Mini-Lecture

AGGRESSIVE, PASSIVE, ASSERTIVE BEHAVIOR AND COMMUNICATION

The three styles you have just considered are somewhat like the elements of the flight-or-fight response: agressive A the "fighter"; passive B--the "fleer." People often do not have the benefit of choosing the preferable way--assertiveness. Some survive childhood by being aggressive in an aggressive family. Withdrawal can be a way of coping, too. But assertiveness--stating what we want or feel, without pushing ourselves on others and without withdrawing and denying our own needs, seems to be one way of coping with stress, or reducing the likelihood of negative stress.

For instance, an insult constitutes a stressor in most circumstances. Insulting back doesn't usually get you what you want--an apology. Not responsding tends to make you internalize the feelings. But stating how you feel and what you want (being assertive) tends to increase the chances that you won't feel negatively "stressed" by the incident. If a teacher always gives too much homework, which can cause stress, you can get mad, alienating him or her; you can not do it, thus avoiding the situation; or you can speak up, which is being assertive.

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*Adapted from Jerry W. Johnson, M.P.A., "More About Stress and Some Management Techniques" in Journal of School Health, January, 1981, pp. 40-41.

Ask students to discuss as a group:

- What are some elements of aggressive behavior and speech? (Emphasis: Using loaded words, accusations, blaming, demanding, being rigid or rude, attacking others, finger pointing.)

- What are some elements of passive behavior and speech? (Emphasis: Allowing others to take advantage of you, giving up easily, putting yourself down, being apologetic all the time, hedging, hesitating, hoping someone will guess what you want, looking down, shuffling.)*

- What are some elements of assertive behavior and speech? (Emphasis: Expressing yourself openly, acknowledging the needs of others, stating your own feelings, using direct statements, making eye-to-eye contact, being relaxed.)

An assertive person is not "better or "worse" than an aggressive or passive person. But anyone has more of a chance of relieving feelings of stress by responding assertively.

3. Question-and-Answer Period

Pass out copies of "Assertive Communication," "'I' Statements," and "Saying 'No'." Ask for a volunteer to read aloud the paragraphs on assertive communication. Then ask students:

- Why are we sometimes afraid of someone else's anger?

- How do "I" statements open the door to effective communication?

- What are the differences among A ("It's a terrible..."), B ("You make me so angry..."), and C ("I feel hurt...").

4. Practicing Saying No

What are some stressful situations that especially require aggressive at school, or very aggressive in social situations but withdrawn in class.

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*Not every aggressive or passive person will show all of these characteristics. Furthermore, people can respond differently in different situations. A person may be passive at home and aggressive at school, or very aggressive in social situations but withdrawn at class.

against a bureaucracy, when there's pressure for sexual activity, when your personal safety is endangered, when there are conflicts with teachers, parents, friends.)

Refer students to "Saying 'No.'" Emphasize that saying "no" when you want to reduces the likelihood of stressed feelings. Like most skills, this one improves with practice. There is no one way to say no. As practice ask how they would respond to the following requests.

> "Please do this for me. It will only take a few hours. I know you have exams, but you're so good at photography--won't you do this for me just this once?"
>
> "C'mon. Let me take you home. I haven't had that much to drink, only three or four beers. You know I'm a safe driver--c'mon!"

5. Role Playing

Now pass out the index cards, one for each small group of students. Ask the groups to agree on a request that would probably deserve a "no" response and role play the interaction.

- Listen for: naming of feelings, identification of specific circumstances, how circumstances affect person.
- Ask: How did saying "no" make you feel?
- Why is being able to say "no" so important?

6. Homework

Ask students to practice assertive communication skills by filling out the blanks in the situations in the handout, "'I' Statements." Have them also look back through their Stress Books and explore how they could have communicated assertively in the stressful situations they have noted, and what could have been said. They should then practice these new skills in appropriate situations. Remind them to continue adding to their Stress Books.

ASSERTIVE COMMUNICATION*

Often, we may want to tell another person how we're feeling, but we're afraid that other person will react negatively--yelling at us, getting angry. We can't control the person's reaction. But we can reduce the chance that he or she will go on the defensive by selecting our words carefully.

The other person will usually get defensive if he or she thinks we're blaming, criticizing, judging, or threatening him or her. The key to telling the other person how we feel without putting that person on the defensive is to use "I" statements rather than "you" or "it" statements.

An "I" statement says, in effect, "I know and take responsibility for myself and my feelings; I'm not blaming you; and I am letting you know what part you play in my world." Such a statement opens the door to effective communication.

Feel the difference between these three statements:

A: "It's a terrible thing to do, what you just did."

B: "You make me so angry when you do that."

C: "I feel hurt when you do that--I imagine you're saying my needs are not as important as yours."

An "I" statement names my feelings; identifies the specific circumstances when my feeling occurs; tells how the circumstances affect me; and sometimes lets the other person know how I would like to see the situation change.

1. Name my feeling	I feel happy... I feel frustrated... I feel disappointed...
2. Identify the specific circumstances	when you share that feeling with me... when you don't look at me as we talk... when you don't study with me after you've agreed to do it...
3. Tell how the circumstances affect me	because I value sharing... because then I feel I'm not a good enough speaker... because I imagine you don't care about my input on the subject
4. (Optional) Tell how I'd like to see the situation change	and I hope you'll value sharing, too. and I'd like you to tell me what your not looking at me means. and I'd like to know how you feel about our studying together.

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*Help Yourself: A Series on Stress. Materials development coordinated by Kate Rafferty, New Hampshire Department of Public Health Services, and Mary Jo Herde, University of New Hampshire Cooperative Extension Service. Materials edited by Lisa Sarasohn, New Hampshire Office of Community Education, 1980.

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"I" STATEMENTS

Use the situations below, or situations you identify yourself, to practice making "I" statements. Note the four parts to such statements.

Situation 1

After purchasing a sweater and bringing it home (but not wearing it) you notice that the sleeve has a rip in it. You decide to return the sweater for a refund. What do you say to the clerk?

1) My feeling: _____

_____

2) The circumstances (be specific): _____

_____

3) How the circumstances affect me: _____

_____

4) What I want to happen: _____

_____

Situation 2

Your mother/father has just told you that she/he won't be at home on your birthday because she/he has a party that she/he wishes to go to. What do you say?

1) My feeling: _____

_____

2) The circumstances (be specific): _____

_____

3) How the circumstances affect me: _____

4) What I want to happen: _____

_____

*Help Yourself: A Series on Stress. Materials development coordinated by Kate Rafferty, New Hampshire Department of Public Health Services, and Mary Jo Herde, University of New Hampshire Cooperative Extension Service. Materials edited by Lisa Sarasohn, New Hampshire Office of Community Education, 1980.

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SAYING "NO"*

There can be times when you want to say "no" for a variety of good reasons, but the situation makes it difficult. You may find yourself going along with something you really don't want to do because you cannot figure out on the spot a way to say "no."

There's no point in getting yourself caught up in behaviors that aren't "you"--and on occasion, that means you must be able to say "no" successfully.

Saying "no" assertively is truly a fine art. Here are some general rules:

- Get your point across firmly, and stick to it. Be consistent. Be honest about your reasons for saying "no."
- Don't "put down" the other person(s) or act in a way that might lead to a real confrontation.
- Maintain control of your mind, body, and actions.

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*From Risks to Take, Choices to Make, Family and Community Health Through Caregiving Program (Newton, Massachusetts: Education Development Center, Inc., 1981), pp. 30-31.

Activity Seven

Diet, Exercise, and Sleep: General Guidelines and Personal Prescriptions

Objectives

Cognitive: Students will be able to:

- Recognize specific signs of stress.
- Distinguish between positive and negative techniques or actions for coping with a stressor.
- Cite one use and one misuse for each of exercise, diet, and sleep in responding to stress.
- Identify at least one specific way in which diet has been linked to health and stress.
- Identify at least one specific way in which exercise has been linked to health and stress.
- Identify at least one specific way in which sleep has been linked to health and stress.

Affective: Students will:

- Value the potential contributions of exercise, diet, and sleep to the reduction of stress and the promotion of health.
- Appreciate the importance of social supports as an important factor in cushioning the effects of stress.

Skills: Students will be able to:

- Refine their abilities to listen and distill information into note form.
- Construct a chart showing some of the potential relationships between diet/exercise/sleep and health/stress.

Activity at a Glance

By analyzing and discussing two case studies, students have an opportunity to see the potential use and misuse of diet, exercise, and sleep in response to stress. They also construct a chart revealing some of the possible ways in which diet, exercise, and sleep relate to stress and health.

Preparation

1. Read the "Background Notes for Teachers" starting on page 60. For additional background information you may want to

2. Duplicate "Signs of Stress: Michael Kingman" and "Sings of Stress: Ginny Clark." The class will be divided into two groups, each discussing one of the case studies. Each student in a group should have a copy of the case.

Procedure

1. Case Study Exercise and Class Discussion

Divide the class into two groups. For the first part of the exercise each group will work on one of the two cases. Pass out copies of the case studies. Tell students that each study illustrates a particular set of responses to a stressor experienced by a high school student. In particular, each case demonstrates how diet, exercise, and sleep can contribute to the creation or management of stress.

Ask students to read the cases silently. Then, working in their groups, students should discuss the following questions.

- What is the stressor in this case?
- What are the signs of stress?

Ask one or more members of each group to read its case to the other group and ask the other group the same questions.

- How did Michael and Ginny use or misuse diet to create or reduce stress? (Emphasis: Michael started skipping dinner. He substituted snacks high in salt [crackers], caffeine

[soda, coffee], and refined sugar [doughnuts] for a well-balanced meal high in the nutrients our bodies need. While the sugar in soda and other snack foods can give Michael an immediate burst of energy, a drop in blood sugar which usually occurs about two hours after eating sugar can leave one even more tired than before. Using caffeine to stay awake is no substitute for the sleep your body is demanding when it shows signs of being tired, like nodding off while studying. Caffeine may itself be a stressor, contributing to insomnia, nervousness, irritability, stomach pains, and anxiety. Ginny began overeating in response to the stress and excitement of her lead role in the school play. She and her friends used eating as a reward when things went well, and as a source of comfort when things went poorly. Like Michael, Ginny and her friends also tended to eat snack foods and foods high in sugar. When Ginny resolved to go on a diet, her decision to consult the family doctor was a positive statement about her intention to use her diet to reduce a cause of stress [overweight] as well as to manage the stressfulness that can be associated with trying to lose weight by altering your eating habits.

- How did Michael and Ginny use or misuse exercise to create or reduce stress? (Emphasis: Michael overexercised as a way of reacting to the stress caused by the ending of his relationship with Julie. The exercise itself became a source of stress for Michael, leaving him overtired and contributing to his rapid loss of weight. Ginny had used jogging as a daily exercise routine before she got the lead in the play. She did not continue it because of her rehearsal commitments. Though she eventually started another exercise program, she actually created more stress for herself by doing something that she really didn't like. As a result, she found she often got headaches after doing aerobic dancing. Both the physical act of exercise and the emotional attitude toward it are important in reducing stress and maintaining health.)

- How did Michael and Ginny use or misuse sleep to create or reduce stress? (Emphasis: Michael worked against the signals that his body needed sleep. He stayed up past the time when he was tired, chemically buoyed by caffeine. Once in bed, he could not sleep soundly because of the caffeine and because of his unresolved feelings--feelings he had not talked out with anyone. Even though his best friend continually tried to make contact by phone, Michael has cut him and his family off, running away from one stressor and compounding it with others. Ginny overslept as a way of dealing with all the stress and excitement of her part in the play. Because so much was going on most of the time, Ginny used free time to sleep whether she was tired or not. Ginny also substituted sleep for exercise, forgetting that

exercise gives you more energy by increasing your emergency reserves. Exercising would also have helped Ginny control her weight.)

Summarize the case study discussion by making the following points:

- Both Michael and Ginny are suffering from stress. Michael's stress resulted from an experience which he perceived negatively: losing an important relationship. Ginny's stress grew out of a positive accomplishment: being cast as the lead in a play.

- There is no one right way to manage or reduce stress. Just as jogging worked for Ginny, but aerobic dancing didn't, each person must find the techniques or activities that work best for him or her--remembering at all times to consider both the short- and long-term health consequences.

- In both cases, social supports or the absence of social supports make a difference to how the stress is experienced. Michael chose to cut himself off from others and is therefore alone with his unhappiness. Ginny's acceptance of her friends' help makes it easier to cope with the stress of being overweight and needing to diet. Research confirms that strong social ties and supports can act as powerful buffers, cushioning the potentially negative effects of stress. One important reason for students to take their new understanding of stress and the skills they have learned to manage stress beyond themselves to their families and communities is their ability to reduce the effects of stress on others as well as on themselves by working toward a sense of group and community cohesiveness.

2. Making Charts

Using information that they have developed in their discussions and additional information you provide, students fill in charts that show the potential links between diet, exercise, and sleep, on the one hand, and health and stress on the other. Review the information from the discussions, and have students make notes on their charts. Then, referring to the Background Notes for Teachers, give students the information in summary form. Tell them to listen for the main points so they can put them in their charts. For example, you will be telling them about the role of the six basic nutrients in promoting and maintaining health. On their charts, they can simply write in the column under DIET and HEALTH: "Each of the six basic nutrients is essential to health" or "A well-balanced diet is needed to keep healthy." Along with learning about diet, sleep, exercise, health and stress, students will also get good practice listening, distilling information, taking notes, and constructing charts.

Alternatively, duplicate the Background Notes for students to take home and ask them to complete the chart for homework. If you do make this a homework assignment, consider asking students to include other information they know or can find.

To help students set up their charts, draw the following diagram on the board. You may also want to have pencils and rulers available.

POTENTIAL LINKS BETWEEN DIET/EXERCISE/SLEEP
AND HEALTH/STRESS

	HEALTH	STRESS
DIET		
EXERCISE		
SLEEP		

Note: Remind students to be sure to bring their Stress Books to the next class. The activity is built around the information they contain.

BACKGROUND NOTES FOR TEACHERS

LINKS BETWEEN DIET/EXERCISE/SLEEP AND HEALTH/STRESS

Research on the relationship between these basic lifestyle issues and stress is far from complete. What we know about the stress response and normal bodily functioning, however, suggests that adequate diet, exercise, and sleep can promote health as well as prepare the mind and body to cope more adequately with stress.

Diet

- On the most basic level, food is essential for survival. Food contains nutrients that support bodily functions. There are six basic nutrients: carbohydrates, protein, fat, vitamins, minerals, and water. Each is essential to maintaining health. Carbohydrates supply energy; proteins build and repair body tissues; fat stores energy and releases it as we need it. Vitamins and minerals regulate a number of our body processes. Water, which makes up 70 percent of the total body, is necessary for all these processes to take place.

- In America, current eating habits are one reason for the increase in heart disease, strokes, and certain forms of cancer. These diseases are called degenerative diseases because they cause your body to degenerate, or weaken, slowly and invisibly over a long period of time. The standard American diet has been linked to six of the ten leading causes of death in the United States. We eat too few foods high in fiber and starch, too many foods high in salt, sugar, and fat--particularly saturated fat, and too few plant foods naturally lower in fat and calories.

- Regular mealtimes should be established so that the body becomes accustomed to particular ebbs and flows of blood sugar--rising after meals and falling with time after eating. You may recognize that your body has a pretty good memory for time; somehow it always seems to remind you when it's time for lunch or dinner. When we do not respect the rhythms of the body, we put a strain on our system. If your body never knows quite when it's going to get the food it needs, that is an important source of physical stress.

- If we do not eat regularly, the only way we can raise the blood sugar level for energy is to release glycogen from the liver. This process is controlled by a chemical called epinephrine, released from the adrenal glands. There are several ways to raise epinephrine levels in the blood:

  (1) Stirring up the body as if for confrontation. We get cranky when we're hungry. We are ready to fight because we are stirring up production of the fight-or-flight chemical.

(2) Taking a dose of a drug that will stimulate production of the needed chemicals. One of the most commonly taken drugs for this purpose is caffeine. We get tired in the late afternoon, for example, when blood sugar levels are low, and crave a cup of coffee or a soda that has caffeine in it. The caffeine raises production of epinephrine which controls the release of glycogen from the liver. As the level of blood sugar rises, we have energy again.

Exercise

Exercise has both physical and psychological benefits.

Physical Benefits of Exercise:

- The major cause of death in this country is heart disease. Diseases of the heart and blood vessels kill more people than all other causes combined and are responsible for 65 percent of deaths (excluding deaths caused by accidents). By exercising, you strengthen your heart and prevent the build-up of fatty deposits on the artery walls. In the last ten years as more Americans have gotten involved in regular exercise programs, there has been a 22 percent reduction in deaths caused by heart attacks and a 30 percent reduction in deaths caused by strokes. Of course, other factors, such as eating food containing less dietary cholesterol and saturated fats, may also be responsible for this promising drop in heart disease.

- Maybe it seems contradictory, but the more regular exercise you get, the more energy you will have for other activities. If your body is fit, it can handle more. So if you are tired and have trouble keeping up with school, work, parties, and other activities, the answer may not be more sleep but more exercise. There is evidence that when you exercise regularly, you need a bit less sleep and you sleep more soundly.

- People who are overweight do not necessarily eat more than their normal-weight friends, but they do move less. The less you move, the fewer calories you burn. The more exercise you get, the more calories you burn, and the more you can eat without putting on weight. Exercise also helps regulate your appetite. As you exercise more, you will not be a lot hungrier. In fact, after exercising for an hour, you will generally feel less hungry than when you started. Being overweight (especially in our weight conscious society) makes many people feel stressed. Excess weight is also a physical stressor, placing extra demands on our system.

Psychological Benefits of Exercise:

- Exercise makes people feel better about themselves. A positive outlook is a powerful mediator of stress; when you feel good about yourself and others, somehow things just don't seem quite so difficult.

- After exercising for at least a half hour, some people's bodies begin to release higher amounts of endorphin, a chemical substance that blocks

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feelings of pain and makes you feel exhilarated. Even if you don't feel exhilarated after 30 minutes of exercising, you will often feel more optimistic. Psychologists are finding that exercise is therefore a good treatment for stress, and related symptoms of anxiety and depression.

- If you get regular exercise you will find it easier to settle down and concentrate. For those who find school work a stressor, the ability to concentrate may make homework more absorbing and may even result in better grades! Studies have shown that people who exercise have more self-confidence and feel better about their bodies than those who do not. Part of this feeling probably comes from knowing more about what you can do and what your limits are.

  One study showed that experienced exercisers are better at estimating how well they can do on a task than people who do not exercise. And exercising helps you accept yourself despite your limitations. As one regular exerciser said, "I've become much more tolerant. I've learned to accept second and third place in a lot of things that I normally wouldn't. I like competition, but I've come to realize that you just can't win everything. It's made me more mellow."

Sleep and Relaxation:

- The mind and body are constantly at work—even when you sleep. During sleep, however, the system has an opportunity to slow down. Energy used during exertion can slowly be restored when the body is at rest.

- After exhaustion from excessively stressful activity, sleep and rest can help restore the depleted resources of the mind and body <u>almost</u> to previous levels. The word <u>almost</u> is used because excessive or constant stress gradually wears the mind and body down. This is why some researchers believe excessive stress is linked to illness and disease. Different people develop different illnesses and diseases depending, to some degree, on which part of the body is weakest and most vulnerable to stress and strain.

- Rest and relaxation are two mechanisms for relieving and/or reducing the experience of stress.

- Insomnia, or the inability to sleep, is itself a powerful stressor. If a sleepless night follows a hectic day, chances are you will not be in any shape to work or concentrate when you get back to school or work. The stress of trying to get things done when you are tired may mean another sleepless night and the development of a vicious cycle which is very hard to break.

- Keep in mind that the hormones produced during acute stress are meant to alert you and key you up for peak accomplishments. They tend to combat sleep and to promote alertness during brief periods of exertion. If too much of these hormones is circulating in your blood, you will have a hard time falling asleep.

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SIGNS OF STRESS: MICHAEL KINGMAN

Up until his senior year at Fenton High, the world looked pretty good to Michael Kingman. He was a star of the school track team and a straight A student. Interested early on in computer technology, he had applied to college at the end of his junior year and recently learned of his acceptance.

By any standards, Michael was friendly and good-looking. For most of his junior year, he had been especially friendly and good-looking to Julie West. To quote his best friend, Jamie, Julie and Michael were definitely "an item."

Julie and Michael did everything together. After school, Julie went through Michael's exercise routines with him to keep him company and to keep them both trim. Week nights they almost always studied at one of their houses, capping off the evening with something to eat at Rick's Place around the corner from school. Weekends they went on trips, partied with friends, watched television, or went to a movie. Something was always happening... until summer came and Julie took a job as a counselor at a camp in the mountains. When she returned, she had a deep tan and a new boyfriend.

These days, Michael can usually be found at the gym or on the track. He works out for long hours as soon as the school day ends. Often it is dark before he heads for home. Instead of looking fit, though, Michael is gaunt and thin. Rumor has it that he lost more than 10 pounds in only three weeks' time.

When Michael gets home, he is usually too tired for dinner. More often than not, he grabs a fistfull of crackers and a soft drink and heads upstairs to his room. Though Jamey has been trying to reach him for days on end, he tells his parents he doesn't want to talk to anyone on the phone.

In his room, Michael tries to study, but finds his mind drifting. Every now and then he even catches himself nodding off. To stay awake, he goes downstairs to fix himself a pot of coffee and grab a doughnut for quick energy. Usually it's past midnight before he has all of his homework done. As he climbs into bed, he worries that he will have yet another sleepless night. Tossing and turning for the next few hours, he wakes cold and tired to the shrill sounds of his alarm. Slowly he pulls himself out of bed to face another day of the same routine.

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SIGNS OF STRESS: GINNY CLARK

Right in the middle of a double fudge sundae, Ginny decided she didn't like the way she looked. Even though she was having a good time laughing and talking with her two best friends, things just didn't feel quite right. Maybe it was the 15 pounds she had put on in the last two months since she had been cast in the leading role for the all-school play. Ever since she had heard the news, she had not been able to keep anything still—especially her mouth.

After rehearsals, it was constantly late-night pick-me-ups at Steve's Ice Cream Parlor. And of course those weekend sessions learning lines with friends absolutely required accompanying chips, dips, and sodas. When things went well it was soda and sandwiches for everyone: "Let's celebrate with some refreshment!" When things didn't go so well it was soda and sandwiches for everyone: "We'll get it together tomorrow after we've had some rest... and refreshment!"

With the time needed to rehearse the play, Ginny found herself cutting back on her daily routines. Since she had to be at early morning practices, for instance, she felt she had no choice but to forego jogging. At first, she had planned to run in the afternoons, but found she was too tired. Instead, she had gotten into the habit of taking an afternoon nap before returning to school in the early evening. Though weekend mornings were often free, Ginny also took advantage of these times for sleeping. Often on a Saturday or Sunday, Ginny slept until almost noon.

As time passed and the pounds mounted, Ginny began to notice a general feeling of lethargy and depression. Life was certainly exciting, but something felt out of balance. For a short time, she tried a self-taught course in aerobic dancing. It didn't require as much exertion as running, and she could do it in the comfort of her room. The only minor drawback she had to overcome were the headaches she often developed from the music in the background. Discouraged after one exercise session, she turned off the stereo and headed for the kitchen to drown her frustrations in a glass of chocolate milk, with a few butter pecan cookies for good measure.

But today, right in the middle of eating her double fudge sundae, she looked first at herself and then across the table at her two best friends: "Okay," she announced, slamming her spoon on the table for emphasis, "I'm on a diet. No more double fudge sundaes for this overweight actress."

Neither Paul nor Sheila could argue with Ginny about the fact: Ginny was too heavy. Yet, both quickly added—almost in the same breath, that Ginny was very attractive (also true) and that they wanted to support her efforts to lose weight in any way they could.

So right then and there, Ginny, Paul, and Sheila began to make a plan:

- Ginny would start jogging again, instead of substituting another form of exercise that she did not like. Even though she was tired when she got home from school, she would use this time to run, not sleep. Since this was the time Paul usually ran, he would go with her for the first few weeks.

- Ginny would make an appointment with her family doctor, get some advice about a reasonable diet, one that would help her lose 15 pounds over several months without making her feel that she had to give up everything she loved to eat.

- When Ginny got hungry for those late night snacks, she would call Sheila instead. Reading was another technique Ginny often used successfully to take her mind off eating before going to sleep. And it wouldn't hurt if everyone did less eating after rehearsal.

Instead of finishing their sundaes then, Ginny, Sheila, and Paul cleaned off the table and headed for home. Ginny already felt a little lighter.

Activity Eight

Changes

Objectives

Cognitive: Students will be able to:

- Identify their most commonly experienced stressors.
- Recognize patterns in their responses to stress.
- Determine ways to implement personal change.
- (Optional) Recognize sources of stress in the school environment and determine ways to implement change.
- (Optional) Recognize environmental stressors in their community.

Affective: Students will:

- Value and appreciate the fact that it is possible to alleviate stress in their lives.
- (Optional) Value and appreciate the fact that it is possible to alleviate stress in the school and in their communities.

Skills: Students will be able to:

- Plan for change in themselves.
- Analyze strategies for alleviating stressors in their lives.
- (Optional) Analyze strategies for alleviating stressors in the school and in the community.

Activity at a Glance

Students review their Stress Books, identifying the activities, events, and/or interactions that most commonly create stress in their lives and noting the behaviors they typically adopt to respond to them. They will look for changes in their attitudes and behaviors toward stressors as a result of using the module and will sign a contract for changing a stress-related condition or behavior. Optional information and activities are included for teachers and students who wish to take what they have learned beyond themselves and into the school or community.

Preparation

1. Remind students to have their Stress Books in class.

2. Duplicate "Contract for Change," a copy for each student.

3. If you plan to incorporate the optional activities on environmental stressors, invite the principal or other school staff member (e.g., vice principal, headmaster, school nurse, counselor) to come to speak to students about school stressors halfway through the second session. Provide the visitor with a copy of Activity Eight to read beforehand so that he or she comes to the discussion understanding its content.

Procedure

1. Reviewing Stress Books and Making Contracts

Ask students to recall all the ways for minimizing personal stress that they have learned from this module. Write these methods on the board as students come up with them. (Emphasis: Relaxation, time out, eating regularly, getting an adequate amount of sleep, talking to someone close, anticipating and planning for the stressful event, trying to change perceptions when appropriate, finding a personal stress level, communicating assertively, exercising on a regular basis.)

Then ask them to reread their Stress Books, making notes on the following:

- What activities, events, or interactions seem to keep coming up as stressors? Do you notice, for instance, that every

time you play a competitive game with your brother or sister you end up in fight? Or, whenever you sit down to do homework in a particular subject you get a headache?

- How do you typically feel when this stressor comes up? How does your body react?

- What do you usually do when confronted with your most common stressors? What change in attitude or behavior in response to your stressors have you noticed since you started keeping your Stress Book?

- What behaviors or attitudes seem to work best for you? What responses don't seem to work? Are all of your coping techniques compatible with supporting and promoting your physical and mental health?

If students are comfortable sharing what they discover, ask individuals to report back to the class. Alternatively, ask students to hand in their papers, but do not require that these notes be shared if students feel they are private. You can read some of the responses randomly without identifying the authors, or respond to each student at a later time with written comments.

Next, pass out copies of the "Contract for Change." As a class, work out a hypothetical contract; for instance, "My goal is to be less anxious about taking tests," or "...to be more assertive when friends ask me to do something I think is unhealthy."

Refer students again to their Stress Books, and ask them to choose one particular stress-related issue that they have not managed successfully but would like to change. Then, using their knowledge of techniques and skills for reducing stress, ask them to fill in the contract. Tell them to choose a partner to watch for progress.

Set a realistic date (one to two weeks is generally sufficient) to have students report back on their progress. Then, as you go on to other work, students will have an opportunity to continue working on their stress contracts and a clear idea of when they will be expected to share the results. Checking in after a week or two will also give students time to digest all that they have learned in the module and to ask questions that have surfaced in the ensuing weeks. (You might suggest that after they have fulfilled the contracts with themselves, they perform the Self-Inventory from Activity Two again, to see if there are any major differences in the levels of stress and tension or the numbers of stressed behaviors they experience.)

CONTRACT FOR CHANGE

My goal is to _____

I will _____

from _____ to _____

and will record my progress in a log.

My support person will be _____

She or he will help me by _____

I will reward myself by _____

_____

_____ along the way.

My end reward will be _____

_____

Date _____

Signature _____

_____

*Adapted with permission from The Changer and the Changed, DiMella and Bershad, Management Sciences for Health, Boston, Massachusetts, and the Newton, Massachusetts, Public Schools.

Optional: Background Material and Activities Addressing the Issue of Environmental Stress

Research in the area of stress and health, and particularly in the area of adolescent stress and health, is relatively recent and still incomplete. We have chosen, therefore, to focus most of this module on personal and interpersonal issues, assuming that adolescents will be most interested in the impact of stress on themselves and those directly around them. Because we believe that taking what you learn beyond yourself is also very important, and is an especially important perspective to teach adolescents, we are including the following material as an option if you wish to introduce some of the issues of environmental stress. The activities focus specifically on the school and the surrounding community. If you plan to address stressors in the school environment, allow one day to get started and determine a realistic time frame to complete the objectives that you and your students establish. Likewise, if you intend to begin one or more projects relating to the community, you will need to extend class time accordingly.

1. Notes for Mini-Lecture

In addition to stressful interactions between people and situational stressors, like work on an assembly line, the environment can contain many stressors. They may be naturally occurring ones, like a heat wave, which generally causes people to be irritable. Or they may be man-made: for example, confusing traffic patterns, and unclear signs can confuse us and cause stressful feelings because we may fear getting lost.

It is good to remember, though, that these kinds of environmental factors cause some people stress, and yet others may gravitate towards them. You may like it best when the weather is very hot; traffic patterns may challenge your ability to find your way.

Becoming aware of the potential stressors in your environment and taking actions to minimize their negative effects may help reduce the stress you experience but may not even be aware of. Oftentimes, we become so accustomed to the sights and sounds in our environment that we fail to recognize the role they play in making us feel anxious or stressed. We become "passive adaptors" to conditions that may be hazardous to our well-being and health. And while it is beyond our control to alter some conditions (like overcrowding in cities, isolation of rural areas), there are many factors in

our immediate surroundings that we can work to change. It is also important to recognize environmental factors that can minimize the negative effects of stress (fresh air, good lighting, for example), and make sure that these factors are present in our environment.

- What factors in the environment make you feel tense or anxious? How does your body respond?

- When you are in a crowded elevator, theater, or shopping mall or store, what emotions are aroused? (For instance, when you are on a crowded elevator, you may feel stress because you are stuck there until you reach your floor. The sensation of people pushing in a crowded store may cause stress because it interferes with what you are trying to do. Psychologists believe that when people feel a loss of control in a crowd, distress is the result.)

2. Taking a Look at Our Immediate Environment: The School

Divide students into two groups, and ask them to generate the following:

- A list of factors in the school environment that are major stressors, such as overcrowding in the cafeteria, breaks between classes that are too short to allow for "time out," noise of a distressing level, etc.

- Ideas for changing these conditions. (Emphasize that they should try to be realistic: if there is construction going on in the school, for example, or the school is in a noisy urban environment, it may not be realistic to talk about diminishing the noise level.)

3. Talking with the Principal (or Other School Staff Member)

After students have listed stressors and suggested changes, invite the principal to participate in a discussion with students about possibilities for implementing the changes. Here are some issues that should be covered:

- Why do the stressful conditions exist? (Some of the stressors may be unavoidable.)

- How can students help minimize stress in their schools?

- Is there an all-school stress project that students, teachers, and administrators could work on together? What initial planning could the class do?

- Have other schools found ways to minimize stressors? If so, what exactly was done?

4. Looking Beyond the Immediate Environment: Community-Based Projects

To begin one or more ongoing projects, ask students to list major causes of stress in their community. After students have decided on the three major causes, choose the most frequently mentioned stressor and write it on the board. Ask:

- Why do you think this is a negative stressor?
- What is its effect, psychologically and physiologically, on community members?
- What would be the first step in alleviating the stress?

Read "Fighting Noise Pollution Around the World" and "Urban Noise and Neighborhood Organizations." Discuss the various creative ways communities have responded to this potent stressor.

FIGHTING NOISE POLLUTION AROUND THE WORLD*
by Dr. Ariel Alexandre

In Sweden, some city officials are deliberately spending extra money to purchase quiet buses.

In Japan and France, proceeds of airport taxes are used to finance noise insulation of nearby buildings.

In Europe, major efforts are underway to standardize noise emission limits for motor vehicles and other equipment.

In Germany, buyers of exceptionally quiet lawnmowers and noncommercial aircraft are exempted from certain restrictions on use. Germany is studying how to apply this principle to traffic noise control.

In Lausanne, Switzerland, a police anti-noise brigade has enforced a vehicle noise emission law and educated the public on noise control since 1950.

In Darlington, England, school children participating in a project sponsored by the Noise Advisory Council and the Advisory Center for Education are measuring noise in the town and conducting simple social surveys on noise effects.

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*From EPA Journal, October 1979.

URBAN NOISE AND NEIGHBORHOOD ORGANIZATIONS*
by Milton Kottler

In Baltimore, Maryland, the Greater Homewood Community Corporation has taken on a large and long-range project to reduce noise and congestion from traffic. The organization serves a number of neighborhoods ranging from wealthy to very poor and from single-family homes to large apartment and commercial buildings. The total population of the neighborhood is 44,000.

The organization has been most active in the area of traffic. Residents were concerned about the noise, air pollution, and congestion resulting from traffic on arterial streets that run through the neighborhood. Greater Homewood was instrumental in setting up a coalition of organizations in neighborhoods affected by arterial street traffic. The coalition, Streets for People, led a two-year fight which resulted in an experimental traffic reduction plan. The experimental plan allows 24-hour parking in one lane of each four-lane street. An additional lane is reserved for buses. The lane reduction is intended to divert traffic to other routes and to encourage people to use public transportation. The plan will be evaluated this year, and the coalition will work to make the change permanent.

Discuss with students the sort of steps that could be taken to alleviate the particular community stressors they have identified. Following are some specific suggestions for ongoing projects:

- Joining or creating a group of concerned citizens around an important environmental stressor.
- Creating a newsletter for the school or town, presenting information about local environmental stressors along with proposed action steps.
- Setting up a referral system, by mail or phone, to help people connect with appropriate resources to deal with the environmental stressors that are directly affecting them.

Depending on the amount of time you have and the level of student interest, set up group and/or individual projects. Help students by creating specific timetables and by identifying individuals or organizations that can provide them with support. Build in specific class periods for reporting progress and results.

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*From EPA Journal, October 1979.

Other Programs and Resource Materials

A Selected List of Other Materials Relevant to "Handling Stress."

INFORMATION FOR TEACHERS

Benson, Herbert. The Relaxation Response. New York: Avon, 1976.

Farquhar, John. The American Way of Life Need Not Be Hazardous to Your Health. New York: Norton, 1979.

Homes, H.H., and Rahe, R. K. "The Social Readjustment Scale." Journal of Psychosomatic Research, 11:213-218. 1967.

Insel, Paul; and Roth, Walton. Core Concepts: Health in a Changing Society. Palo Alto: Mayfield, 1977.

Ittelson, William, et al. An Introduction to Environmental Psychology. New York: Holt, Rinehart, and Winston, 1974.

Johnson, Jerry W. "More About Stress and Some Management Techniques." Journal of School Health, January 1981.

Miller, Mary Susan. Child Stress. Garden City, New York: Doubleday, 1982.

Selye, Hans. The Stress of Life. Revised Edition. New York: McGraw Hill, 1976.

Selye, Hans. Stress Without Distress. New York: New American Library, 1974.

Tanner, Ogden. Stress. New York: Time-Life, 1979.

Yamonoti, K. "Children's Rating of the Stressfullness of Experience." Developmental Psychology, 15(5): 581-582. (1979)

CURRICULA

DiMella, Nancy; and Bershad, Carol. The Changer and The Changed. (1981)

A book with an accompanying workbook (The Journal of the Changer and the Changed) designed to help students acquire the skills necessary to make positive changes and choices in thier lives.

Available from: Learnming For Life/Management Science for Health
165 Allandale Road
Boston, MA
(617) 524-7799

Goth-Owens, Judy Ann. The Stress Connection: Kid's Guide. (1980)
East Lansing: Cooperative Extension Service, Michigan State University, 1980.

Life Skills for Health: Focus on Mental Health. (1974)

Two curriculum resource guides (one for 7-9 grade level and another for the 10-12 grade level) and a teacher's guide designed to influence the student's health-related behavior in ways that mere provision of health information cannot.

Available from: Peggy Rackness
Division of Health, Safety, and Physical Education
State Department of Public Education
Raleigh, North Carolina 27611
(919) 733-3906

Rafferty, Kate; and Herde, Mary Jo. Help Yourself: A Series on Stress.
Concord: New Hanpshire Department of Public Welfare, Division of Public Health Services, 1980.

MATERIALS FOR THE TEENAGE READER

Buckalew, M.W. Learning to Control Stress. New York: Richards Rosen, 1979.

A book for high school students on stress control techniques. The idea presented in this book is that students should learn to "manage" their stress levels so they can do what they have to do as well as what they would like to do, and so that they can enjoy meeting life's challenges as well.

Risks To Take, Choices To Make. (1981).

Takes a look at the factors that influence the decisions people make with special emphasis on the decisions involving alcohol, drug use, and sexual behavior. Straight talk about risk-taking, a personal decision-making model, and factual information helps students think about and plan in advance to make informed choices that may affect the rest of their lives.

Available from: Family and Community Health Through Caregiving
Education Development Center
55 Chapel Street
Newton, MA 02160
(617) 969-7100

SOME NATIONAL HEALTH ORGANIZATIONS

The following list is a sampling of national organizations offering health information. It is not intended to be exhaustive, and will hopefully be updated periodically to identify organizations that have been missed or that have produced new resources useful in health education curricula. THOSE SEEKING PUBLICATIONS OR INFORMATION ASSISTANCE FROM THESE ORGANIZATIONS SHOULD ALWAYS DETERMINE IF THERE IS A LOCAL OR STATE AFFILIATE OF THE NATION ORGANIZATION AND CONTACT THE CLOSEST OFFICE FIRST. Addresses and phone numbers can be checked through telephone directories, libraries, and local health agencies. ALSO HEALTH INFORMATION AND HELP IN IDENTIFYING OTHER VALUABLE RESOURCES CAN FREQUENTLY BE OBTAINED FROM OFFICIAL STATE AND LOCAL HEALTH AND EDUCATION AGENCIES, COLLEGE AND UNIVERSITY HEALTH EDUCATION PERSONNEL, AND/OR LIBRARY REFERENCE GUIDES. Many of the publications and services are free to the public; others involve a nominal charge.

Action on Smoking and Health
2013 H St., N. W.
Washington, D.C. 20006

Al-Anon Family Group Headquarters, Inc.
P. O. Box 182
Madison Square Station
New York, NY 10059-0182

Alcoholics Anonymous
P. O. Box 459
Grand Central Station
New York, NY 10163

American Academy of Dermatology
820 Davis
Evanston, IL 60201

American Alliance for Health, Physical Education, Recreation and Dance
Association for the Advancement of Health Education
1900 Association Drive
Reston, VA 22091

American Cancer Society
777 Third Avenue
New York, NY 10017

American Council on Marijuana and Other Psychoactive Drugs
6193 Executive Boulevard
Rockville, MD 20852

American Dental Association
Bureau of Health Education and Audiovisual Services
211 E. Chicago Avenue
Chicago, IL 60611

American Diabetes Association
Two Park Avenue
New York, NY 10016

American Dietetic Association
430 N. Michigan Avenue
Chicago, IL 60611

American Hearing Society (formerly National Association for Hearing and Speech Action)
10801 Rockville Pike
Rockville, MD 20852

American Heart Association
7320 Greenville Avenue
Dallas, TX 75231

American Hospital Association
Department of Order Processing
840 N. Lake Shore Drive
Chicago, IL 60611

American Lung Association
1740 Broadway
New York, NY 10019

American Medical Association
Department of Health Education
535 N. Dearborn Street
Chicago, IL 60610

American Medical Association Auxiliary
535 N. Dearborn Street
Chicago, IL 60610

American Optometric Association
Attn: Communications Division
243 N. Lindberg Boulevard
St. Louis, MO 63141

American Osteopathic Association
Public Relations Department
212 E. Ohio Street
Chicago, IL 60611

American Pharmaceutical Association
2215 Constitution Avenue, N.W.
Washington, DC 20037

American Podiatry Association
Council On Education
20 Chevy Chase Circle, N.W.
Washington, DC 20015

American Red Cross
17th and E Streets, N.W.
Washington, DC 20006

American School Health Association
P.O. Box 708
Kent, Ohio 44240

American Social Health Association
260 Sheridan Avenue
Palo Alto, CA 94306

Arthritis Foundation
1314 Spring Street
Atlanta, GA 30309

Association for Retarded Citizens
(formerly National Association for Retarded Children)
P.O. Box 6109
Arlington, TX 76011

Asthma and Allergy Foundation of America
1302 18th Street, N.W., Suite 303
Washington, DC 20036

Blue Cross/Blue Shield Association
676 N. Saint Clair Street
Chicago, IL 60611

Cystic Fibrosis Foundation
Suite 558
3384 Peachtree Road, N.E.
Atlanta, GA 30326

Epilepsy Foundation of America
4351 Garden City Drive
Suite 406
Landover, MD 20785

Family Service Association of America
44 E. 23rd Street
New York, NY 10010

Group Against Smoker's Pollution
P.O. Box 632
College Park, MD 20740

Kimberly-Clarke
Life Cycle Center
2100 Winchester Road
Neenah, WI 54956

Leukemia Society of America
800 Second Avenue
New York, NY 10017

March of Dimes, Birth Defects Foundation
1275 Mamaroneck Avenue
White Plains, NY 10605

Mental Health Materials Center
30 E. 29th Street
New York, NY 10016

Metropolitan Life Insurance Co.
Health and Safety Education Div.
One Madison Avenue
New York, NY 10010

Muscular Dystrophy Association
810 Seventh Avenue
New York, NY 10019

National Center for Health Education
30 E. 29th Street
New York, NY 10016

National Council on Alcoholism, Inc.
733 Third Avenue, Suite 1405
New York, NY 10017

National Cystic Fibrosis Research Foundation
60 E. 42nd Street, Suite 1563
New York, NY 10017

National Dairy Council
6300 N. Rier Road
Rosemont, IL 60018

National Easter Seal Society
2023 W. Ogden Avenue
Chicago, IL 60612

National Fire Protection
Association
Battery March Park
Quincy, MA 02269

National Genetic Foundation
555 W. 57th Street
New York, NY 10019

National Hemophilia Foundation
19 W. 34th S., Suite 1204
New York, NY 10001

National Kidney Foundation
Two Park Avenue
New York, NY 10016

National Mental Health Association
1800 N. Kent Street
2nd Floor
Arlington, VA 22209

National Multiple Sclerosis
Society
20 E. 42nd Street
New York, NY 10017

National Safety Council
444 N. Michigan Avenue
Chicago, IL 60611

National Society for the Prevention
of Blindness, Inc.
79 Madison Avenue
New York, NY 10016

National Tay-Sachs and Allied
Diseases Association, Inc.
92 Washington Avenue
Cedarhurst, NY 11516

Planned Parenthood Federation
of America, Inc.
810 Seventh Avenue
New York, NY 10019

Public Affairs Committee, Inc.
381 Park Avenue South
New York, NY 10016

Tampax, Incorporated
Department HI
P.O. Box 7001
Lake Success, NY 11402

United Cerebral Palsy Association
330 E. 34th Street
New York, NY 10001

United Parkinson's Foundation
220 S. State St., Room 1808
Chicago, IL 60604

FEDERAL GOVERNMENT RESOURCES

Arthritis Information Clearinghouse
1700 N. Moore Street
Arlington, VA 22209

Cancer Information Clearinghouse
National Cancer Institute
Office of Cancer Communications
Building 31, Room 10A18
9000 Rockville Pike
Bethesda, MD 20205

Center for Health Promotion
and Education
Division of Health Education
Centers for Disease Control
Atlanta, GA 30333

Clearinghouse on the Handicapped
330 C Street, S.W.
Washington, DC 20201

Consumer Information Center
Pueblo, CO 81009

Environmental Protection Agency
Public Inquiries Center, PM 211-B
401 "M" Street, S.W.
Washington, DC 20460

Food and Drug Administration
Office of Consumer Inquiries (HFE-88)
5600 Fishers Lane
Rockville, MD 20857

Food and Nutrition Information
Center (FNIC)
3101 Park Center Drive
Alexandria, VA 22302

High Blood Pressure Information
Center
120/80 National Institutes of
Health, Box UR
Bethesda, MD 20205

National Center for Education in
Maternal and Child Health
3520 Prospect Street, N.W.
Washington, DC 20007

National Clearinghouse for
Alcohol Information
P.O. Box 2345
Rockville, MD 20857

National Clearinghouse for
Drug Abuse Information
5600 Fishers Lane, Room 10A43
Rockville, MD 20857

National Clearinghouse for Family
Planning Information
P.O. Box 2225
Rockville, MD 20857

National Clearinghouse for
Mental Health Information
Public Inquiries Section
5600 Fishers Lane, Room 15C17
Rockville, MD 20857

National Diabetes Information
Clearinghouse
Box NDIC
Bethesda, MD 20205

National Digestive Diseases Education
and Information Clearinghouse
1555 Wilson Blvd., Suite 600
Rosslyn, VA 22209

National Health Information
Clearinghouse (NHIC)
P.O. Box 1133
Washington, DC 20013-1133

National Highway Traffic Safety
Administration (NHTSA)
U.S. Department of Transportation
400 7th Street, S.W.
Washington, D.C. 20590

National Injury Information
Clearinghouse
5401 Westbard Avenue, Room 615
Washington, DC 20207

National Institute for Drug Abuses
5600 Fishers Lane
Rockville, MD 20857

National Institutes of Health
Bethesda, MD 20205

National Heart, Lung, and Blood Institute
Public Information and Reports Branch
Building 31, Room 4A21
National Institutes of Health
Bethesda, MD 20205

Office of Consumer Affairs
Washington, DC 20201

Office on Smoking and Health
Technical Information Center
Park Building, Room 116
5600 Fishers Lane
Rockville, MD 20857

President's Council on Physical Fitness and Sports
450 Fifth Street, N.W.
Suite 7103
Washington, DC 20001

Superintendent of Documents
U.S. Government Printing Office
Washington, DC 20402

U.S. Consumer Product Safety Commission
Washington, DC 20207

U. S. Department of Agriculture
Washington, D.C 20250

U. S. Department of Health and Human Services
Washington, DC 20201

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